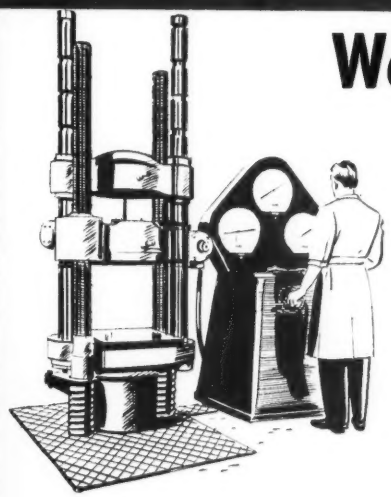
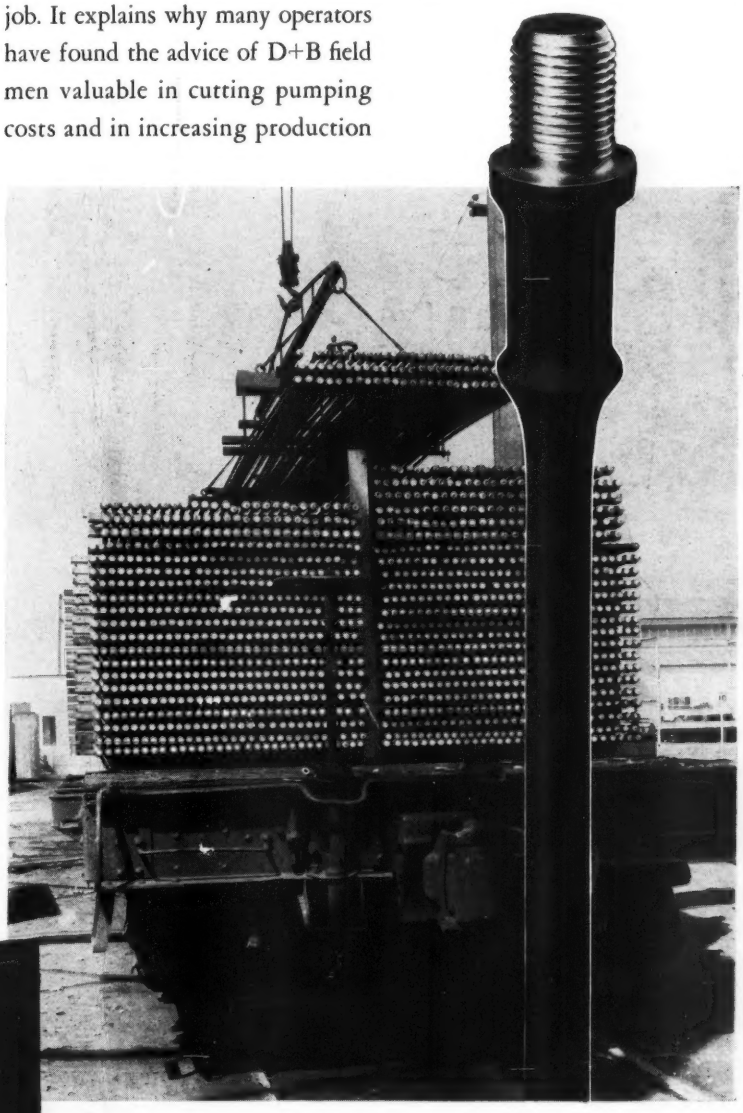
CALIFORNIA
OIL WORLD



Working "for the long pull" every day in the year

IT'S all right to talk about laboratory tests for determining sucker rod tensile and fatigue limits. That's part of any good rod manufacturer's job in building a quality product. Operators should never forget though that it's just "one leg on the derrick."

The pay-off comes on "the long pull" —the stresses and strains that rods must take in a pumping well. Here's where we get our most valuable help in building strength, durability and balance into D+B sucker rods. Rod characteristics as uncovered under actual field conditions are a gold mine of background experience for successful shop practice. Not only that, but these "rod habits" in operation enable D+B representatives to correctly size up a pumping well and accurately determine the rod factors essential in doing the most satisfactory pumping job. It explains why many operators have found the advice of D+B field men valuable in cutting pumping costs and in increasing production over long periods. Talk to a D+B man on your next rod job,—it'll pay in "the long pull."



D+B

SUCKER RODS

STRENGHT • DURABILITY • BALANCE

D+B DIVISION EMSCO DERRICK & EQUIPMENT COMPANY

LOS ANGELES, CALIF • DALLAS, TEXAS

California Distributors

D+B DIVISION—EMSCO DERRICK & EQUIPMENT COMPANY
THE HOWARD SUPPLY COMPANY • LOS ANGELES, CALIF

Small size with BIG OUTPUT

THE NEW "Oilwell" No. 8-P Duplex Power Pump is designed for use where short over-all dimensions are desired. Its outstanding feature is large volume and high pressure output in relation to size and weight.

Two No. 8-P pumps can be mounted side by side on a truck body without exceeding 8-foot road clearance limits.

The No. 8-P is regularly equipped for slush pump service but suitable pistons and special valves can be furnished for pumping clear water, oil or other fluids.

FEATURES

1. One-piece rib-reinforced cast power frame designed for rigidity and accessibility.
2. Fully heat-treated single-helical gears.
3. Shim-adjusted tapered roller bearings.
4. Eccentric drive with full-floating bushings.
5. Combination oilbath and splash lubrication.
6. Flexible baffles on piston rods prevent mud or water from entering power end.
7. One-piece direct-flow fluid end assures efficiency at all operating speeds.
8. Removable liners.
9. Right or left-hand drive—pinion shaft can be reversed without disturbing main gear.

SPECIFICATIONS

Size, Bore x Stroke (Duplex)	inches	5 x 8
Liner Sizes	inches	3½, 4, 4½, 5
Rated Speed	r.p.m.	80
Recommended Brake Horsepower at Rated Speed		76
Theoretical Displacement (Piston Rods Deducted with Full-Size Liners at Rated Speed	g.p.m.	206
Maximum Working Pressure with Full-Size Liners	lbs. per sq. in.	540
Rated Fluid-Chamber Pressures: Suction	lbs. per sq. in.	900
Discharge	lbs. per sq. in.	1,800
Over-all Length (including Steel Skids)		8′ 10″
Over-all Length (less Skids)		8′ 0″
Over-all Width (including Pinion Shaft Extension)		3′ 2″
Over-all Height (including Steel Skids)		3′ 2½″
Weight Mounted on Wood Skids: Domestic	pounds	5,050
Export	pounds	5,425

Send for additional information

OIL WELL SUPPLY COMPANY

Serving the California Oil Industry Continuously Since 1896

934 North Alameda Street, Los Angeles

AVENAL BAKERSFIELD LONG BEACH VENTURA

UNITED STATES STEEL

"Oilwell" No. 8-P (5" x 8") Duplex Power Pump for Slush Pump and General Service.

"OILWELL"

CALIFORNIA
OIL WORLD

PUBLISHED TWICE A MONTH
FOR TIMELY, COMPLETE
CALIFORNIA OIL NEWS COVERAGE

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September 15th, 1944
Telephone Number TUcker 2571

Carrington Kung

What comes after?

This is the question most Americans are asking, as the war in Europe draws to its inevitable end.

The cessation of hostilities in the European area will mark the first of a series of problems of greater magnitude than any so far encountered in the oil industry's rough-and-tumble existence.

Germany's defeat will call for the most difficult and widespread readjustments in petroleum production, distribution and supply. The United States and her Allies will be called upon to reshape their own domestic policies and those of the liberated countries—only to find that much of the job must be done over again when Japan is knocked out of the war.

With the collapse of Germany close at hand, industry and Government are bracing themselves for almost any eventuality. So many problems present themselves that it is almost impossible to conceive of the situation that will remain when the mighty, mobilized armies of the United Nations are brought to a standstill.

One of the most popular—if selfish—questions in the public mind is that of gasoline supply for ration-weary civilians. While this is not the most important economic problem faced by the industry, it will be a primary factor in the post-war scramble to regain a normal market.

Many public officials are confident the end of the war in Europe will bring some relief to the gasoline-starved public. The war in the Pacific cannot require the same lavish expenditures of petroleum products now necessary to supply the thundering armies and air forces that are converging on Germany, they argue. Oil goes with equipment and even the most large-scale operations against Japan and her holdings will not call for the stream of motorized equipment we have been pouring into Europe for our own forces and those of our allies.

There is, however, the possibility that rationing may have to be continued even if motor gasoline becomes suddenly plentiful. The Office of Defense Transportation has very definite ideas of its own on the subject, California Oil World was told. These can be summed up in the warning that "we cannot afford to spend our autos."

Automobiles, tires and spare parts will be the new bottleneck to stop the American motorist from celebrating victory by driving from one end of the continent to the other. With cars dropping off the road daily and stocks of tires and automobile parts badly depleted, the use of passenger cars may have to be restricted until the first new models appear on the market. And gasoline rationing is the most effective check on excessive driving.

With regard to the petroleum supply situation when Germany capitulates, inventory will have to be taken in many lands before we can figure out the U. S. industry's position.

Britain's oil stocks, and our own forces' unused supplies on the other side, must be taken into consideration; the shortages of the liberated countries must be met and the extent of the post-war military demand in Europe determined.

These are some of the problems that will be reviewed in mid-September by a special delegation of oil experts from Great Britain coming over here to meet with U. S. officials in Washington. The discussions—details of which have not yet been made public—will be for the purpose of setting up a program for "internal use" by both Governments in the stock-taking that will follow the end of the war.

Another important question is the disposition of Government agencies set up to assist the industry in its Herculean task of producing for the war effort.

Well, the Petroleum Administration for War has no intention of trying to perpetuate its own existence. Staffed mostly by executives who left the industry to perform a patriotic duty, PAW intends to fold its tents as soon as its affairs can be wound up and return to the headaches awaiting it in private life.

Even with the possibility that it may remain in harness for six months after the Japanese defeat, Washington headquarters of PAW is looking forward to the day when its sizable establishment can be turned back to the Interior Department for use by some peacetime agency. Officials are convinced their sojourn in Washington has been a

priceless

SEED

As Americans we have no post-war responsibility more urgent than jobs for returning veterans . . . The seeds that grow jobs are (1) creative thinking and (2) capital . . . These seeds attain their highest state of fertility under a system that encourages creative thinking and capital which, in turn, convert new ideas into more and more useful jobs. *"The Seeds that Grow Jobs" is a stimulating story of the American system of free enterprise at work. May we send you a copy?*

HALLIBURTON OIL WELL CEMENTING CO. DUNCAN, OKLA.

major contribution to the war effort and — despite the occasional grips expressed by industry at certain PAW restrictions and orders— most oil men are of the same opinion.

. . . Which reminds us that the demands of the Texas Railroad Commission for a conference with PAW on the liquidation of that agency will not be met.

To return to the "period of readjustment" which the industry, generally, will soon be facing:

The so-called Government control which has been exerted over almost every phase of the oil business will melt away when PAW closes its doors. Industry will be on its own, once more,—and in the most chaotic period of its entire history.

Post-war readjustments will be so extreme, and their effect so severe on the industry, that some people are betting it won't be long before oil men are looking back to the trying war-time period of control as the "good old days."

Left to work out its own destiny in a battered, topsy-turvy world, the petroleum industry may have to get out its "crying towel" before balance is restored by recoverance of foreign markets; regearing of refining operations to post-war needs, and regulation of production to avoid possible price dislocations.

All industry is expected to be in a "skittish" mood, after the war. Freed from Federal restraint, there may be a short period of rejoicing among the oil companies but realization of the magnitude of the task ahead will have a sobering effect on industry in general. Cut-throat competition and inter-industry quarreling will flourish during the period of readjustment.

When new cars are made available to the public, a new era in marketing will begin. Super-filling stations — some of them supplemented by department stores and other "park and shop" services — will spring up throughout the country. General improvement in oil transportation methods, with war-built pipelines supplying the domestic United States and war-built tankers available in quantity to transport U. S. petroleum products to the markets of the world, is a foregone conclusion. The railroad tank car, presumably, will be out moded by cheaper methods of transport.

Surpluses will be one of the most important problems. Some oil experts feel there will be a surplus not only of refining equipment, tankers, pipelines and other appurtenances to the present vast production program, but of gasoline and oil as well.

Oil and gasoline surpluses eventually will be absorbed. But the refining industry will face a real job when it surveys the huge, new plants with which it will be left.

Some of the large companies are expected to capitalize on the fact that their more modern plants can be converted easily to the manufacture of hundreds of chemical products,—thus putting themselves into competition with the chemical industry in the utilization of their surplus equipment. The smaller, older refineries, however, will engage in a price war among themselves, it is predicted, — with those unable to modernize, eventually going to the wall.

Officials in Washington see a considerable decline in the consumption of 100 octane gasoline with the defeat of Germany. Many experts believe, however, that refining capacity will be maintained until the end of the Pacific war, with continued production of 100 octane causing a surplus of motor gasoline. In all events, refinery operations are expected to be thrown off balance as military requirements change.

Reveiwing the situation in Europe —where refining and storage capacity has been largely knocked out by bombing raids and the Ploesti oil fields demolished by the retreating Nazis—it looks as though American equipment manufacturers will be doing a brisk trade after the European war. This situation will be magnified with the defeat of Japan, when the Netherlands East Indies are restored to their former productivity.

But all phases of the industry must mark time until some picture of domestic and foreign needs can come out of the war-battered world. For example, it will be impossible to estimate the petroleum needs of the liberated countries until a check can be made on what equipment remains in those countries that can use oil or gasoline. The guess in Washington is that the demand will not be great until the rehabilitation program is well under way . . .

Decisions of the "Big Three" on post-war distribution of production among the various oil-producing countries will be another important factor in the industry's struggle to readjust itself. The position of Russia and her immediate needs for oil and equipment also looms large,— although it is generally understood the Soviet Union will prefer to rebuild with her own materials and that her oil needs will be supplied, as nearly as possible, from Russian oil fields and refineries untouched by the German scourge.

The International Petroleum Agreement, signed last month by the Governments of Great Britain and the United States and awaiting the decision of the Senate as to whether ratification is necessary, has run into considerable difficulty.

As one official put it, "political forces have put the agreement to sleep," with the intention no action shall be taken until after the November elections.

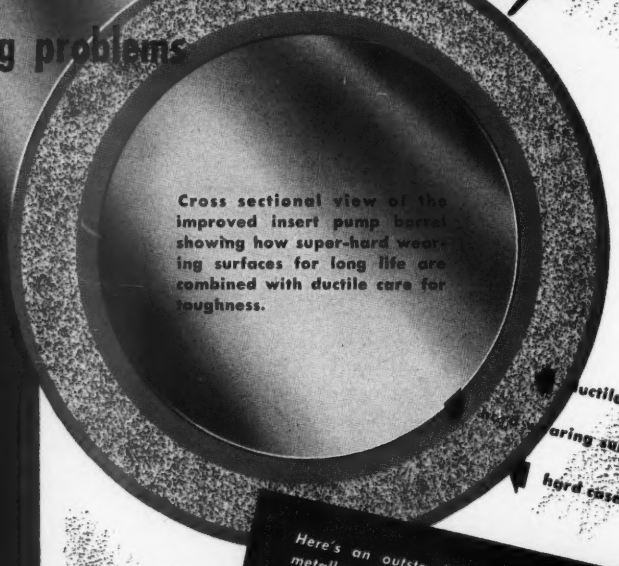
Meanwhile, the pact has been soundly denounced by J. Howard Pew, president of Sun Oil Co., who notified Chairman Tom Connally (D., Tex.) of the Senate Foreign Relations Committee that he considered the document the first step in a "carefully laid plan for the superstate cartel covering the petroleum industry in all parts of the world for the post-war world" . . . Supporters of the treaty, however, remain convinced that it contains the elements of a new understanding between this country and Great Britain over American concessions in Saudi-Arabia and other problems affecting oil relations between the two nations.

Best Washington guess is that a vigorous drive will be made to put the treaty through IF the present administration returns to power in November . . . Otherwise, the agreement sponsored by Secretary of State Cordell Hull and Britain's Lord Beaverbrook will be junked.

One more caution to the oil industry on possible post-war developments. The Department of Jus-

(Continued on Page 29)

HARDENED AND HONED BARRELS which outwear regular barrels 2 to 5 times make Oilmaster Pumps masters of all oil pumping problems



Cross sectional view of the improved insert pump barrel showing how super-hard wearing surfaces for long life are combined with ductile core for toughness.

Here's an outstanding achievement of modern metallurgy—a one-piece pump barrel which is both hard . . . and tough! While most pump barrels are either hard (and brittle) or tough (and not so hard), Oilmasters combine both these important advantages in one barrel. They have a super-hard wearing surface which measures 64-70 on the Rockwell C scale, and a tensile strength of 145,000 p.s.i.—all in the same piece of metal!

There is no need to use pumps with untreated barrels when you can get 4 to 8 times harder barrels that wear 2 to 5 times longer. Why be satisfied with untreated barrels, when Oilmaster pumps equipped with super-hard barrels, cost no more than pumps using cold drawn barrels? Get the complete story on how Oilmaster hardened and honed barrels increase pump life!

The unprecedented hardness measurements of Oilmaster hardened and honed barrels (shown in the accompanying chart) account for the outstanding performance records of Oilmaster Pumps.

	BRINELL	ROCKWELL
Oilmaster Hardened and Honed Pumps	627	64-70-C
Untreated Steel Pumps	150 to 170	6-14-C

FLUID PACKED PUMP COMPANY *Manufacturers of* **oilmaster** *Products*

MAIN PLANT: LOS NIETOS, CALIFORNIA

317 E. TENTH ST., TULSA, OKLAHOMA; 6006 NAVIGATION BLVD., HOUSTON, TEXAS; NATIONAL SUPPLY CO. STORES, ILLINOIS and MICHIGAN FIELDS

New Texaco 100-Octane Plant

An expansion program completed on August 31 at the Los Angeles Works Refinery of The Texas Company located at Wilmington, Calif., involving an expenditure of approximately $21,000,000, will increase the Company's facilities for meeting military demands for petroleum products.

Prior to Pearl Harbor, December 7, 1941, this refinery was operating at a charge rate of 30,000 barrels of crude oil per day, producing 2,000 barrels of 100 octane aviation gasoline, various grades of civilian gasolines, kerosene, stove oil, diesel oil as well as U. S. Navy Special Grade fuel oil and several grades of civilian fuel oils.

Immediately after the Pearl Harbor attack, The Texas Company started consideration of facilities at its Los Angeles Works for the manufacture of additional military products. The principal objective of these new operating facilities was to increase the production of 100 octane aviation gasoline and other grades of gasoline required by the military for the successful prosecution of the war.

To accomplish this purpose, it was necessary to provide:

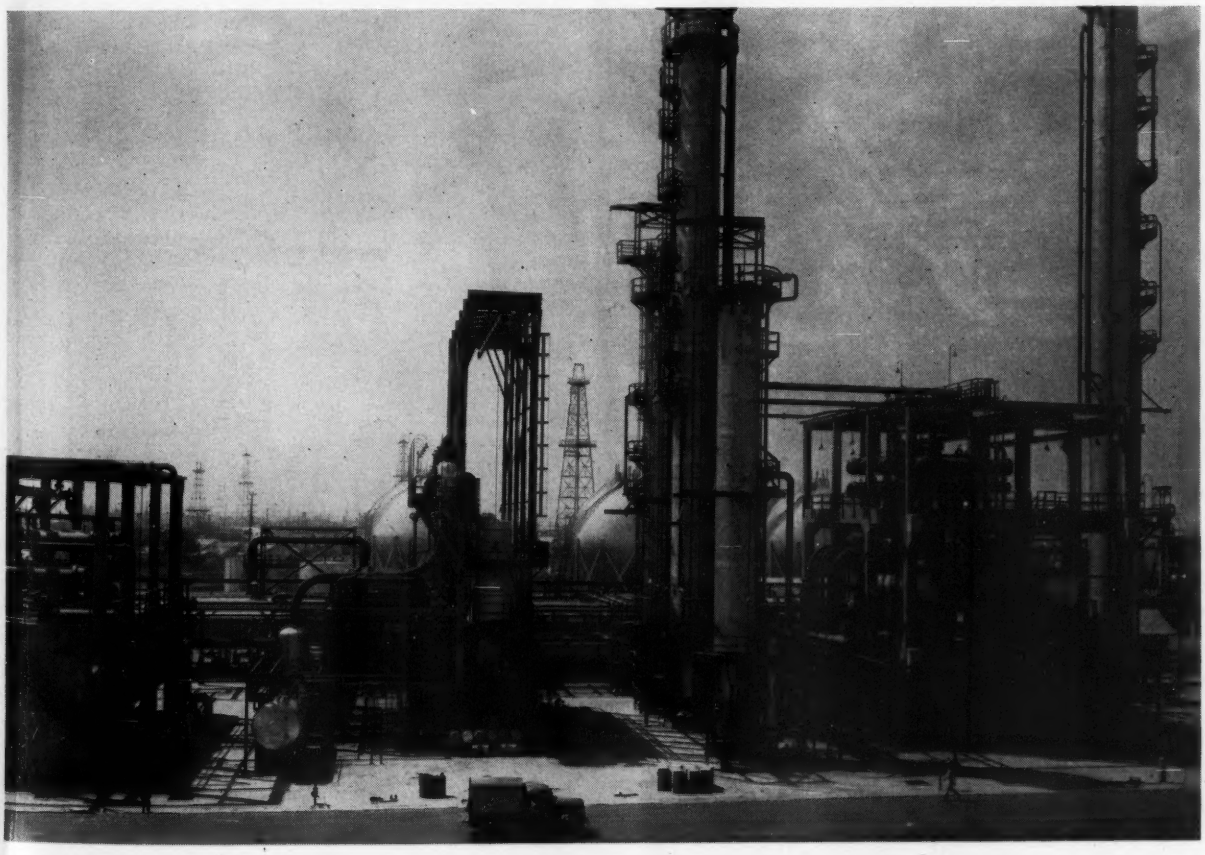
(a) Additional crude stilling capacity.

(b) Additional fractionating capacity for straight run naphthas and natural gasolines.

(c) A new fluid catalytic cracking unit for the production of additional olefins and iso-butane, to be utilized in the manufacture of alkylate, and for the production of iso-pentane and base naphtha fractions, all to be used in the manufacture of 100 octane gasoline.

(d) A new plant for the production of alkylate, the base used for the manufacture of 100 octane aviation gasoline. These facilities include a new Feed Preparation Unit for the improvement of alkylation plant charge.

(e) The installation of new tankage, new lines as well as changes and additions to existing lines was required to permit the proper use of the new operating facilities installed.



Sulfuric acid type alkylation unit.
The Texas Company's Los Angeles Works

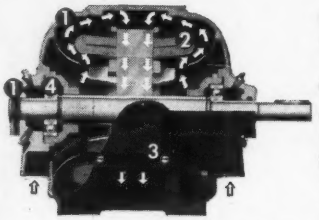
Whether your wells require rapid pumping for short intervals or slow pumping for long intervals, you can now operate them automatically.

With this G-E motor-and-starter team you simply preset the pumping cycle—by setting each well's self-timing G-E starter—to suit the individual requirements of the well. From then on, for months on end, the pump starts, runs, and stops automatically. You make available man-hours count for more. And—by "tailoring" the pumping cycle to fit the well, you make the well yield *more oil.*

To assure long life, G-E splashproof motors are built to withstand the severe vibration of oil-well service, and the rigors of outdoor life. Windings are of tough Formex* wire—no cotton wrappings to absorb moisture. They are bonded with moisture-resistant varnish and protected by a coat of Glyptal* for added defense against electrical breakdown.

And remember that G-E application engineers are always near at hand to help solve your pumping and drilling problems. Call on them through your local office. *General Electric Company, Schenectady 5, N. Y.*

*Reg. U.S. Pat. Off.



❶ One-piece cast-iron frame and deflecting end shields resist corrosion.

❷ Cast-iron baffles.

❸ Water-tight conduit box.

❹ Seal along shaft excludes liquids from cast-iron enclosed ball bearings.

Cutaway view of G-E Tri-Clad* splashproof motor, showing how effective cooling is attained.

❶ Motor-circuit switch accessible to authorized persons only.

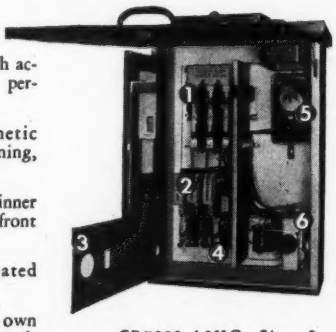
❷ Long-lived magnetic starter, with self-cleaning, self-aligning contacts.

❸ Normally closed inner door provides dead-front panel.

❹ Accurately calibrated overload relays.

❺ Time switch, in its own separate case, facilitates adjustment of pumping cycle.

❻ Readily accessible "hand-off-automatic" selector switch and Thyrite* lightning arrester.



CR7008-A2KG Size 2 starter, with both lift and swing doors open.

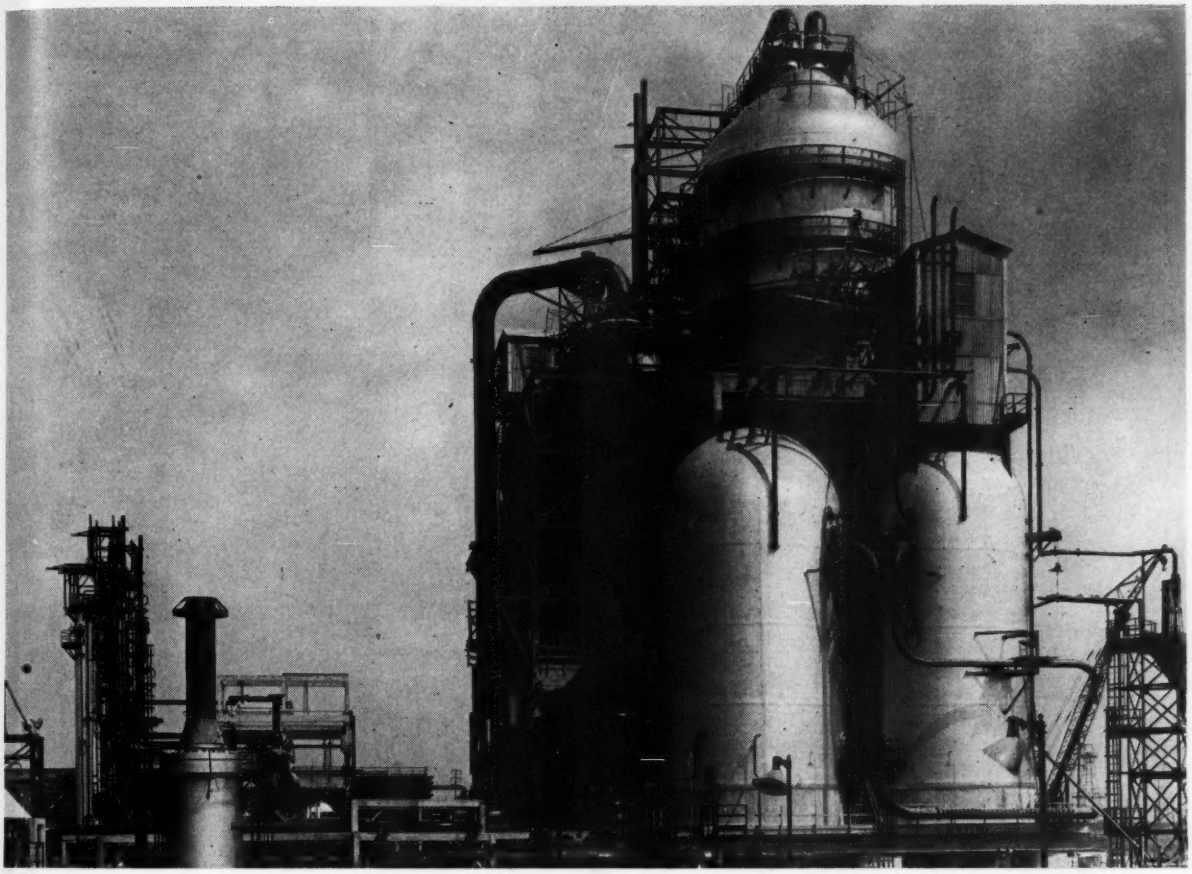
Where purchased power is not economically available, isolated engine-driven G-E generators and a simple G-E power distribution system will provide low-cost power.

MOTORS AND CONTROL
For Oil-Field Service

GENERAL ELECTRIC

654-29-3905

Buy all the BONDS you can—and *Keep all the Bonds You Buy*



Fluid Catalytic Cracking Unit. On the left circular furnace type heater in the foreground and in the background fractionating section of the unit.

(f) Additional steam generating facilities, new water well and cooling towers.

A brief description of the new operating facilities at the Los Angeles Works is covered below:

Crude Stills

A new crude still unit capable of running 12,500 barrels per day of 36-42 API gravity crude oil has been completed and is in operation. This unit consists of a pipe still furnace, a 11′ x 120′ fractionating tower two 4′ x 11′ 6″ stripping towers together with the required pumps, lines, condensers, coolers, and other necessary auxiliary equipment for efficient operation. This unit will produce straight run naphtha of any desired endpoint, kerosene distillate, gas oil and a straight run fuel residuum of 250 to 300 Saybolt Furol viscosity at 122°F.

This crude unit was so designed as to permit the refractionation of 7,500 barrels per day of 375°F straight run naphtha produced on other crude still units at this plant, which operating procedure is rather novel and unusual, and which eliminates the necessity of a separate rerun unit for such purposes.

Superfractionator

This equipment was designed for the processing of 15,000 barrels per day of combined charge made up of depropanized natural gasoline, straight run naphtha, vapor recovery compressor gasoline and any pentane and lighter fractions from the No. 1 and No. 2 Alkylation Plant operations.

There are six fractionating towers operating in this unit. The first column debutanizes the charge, fractionating off an iso-butane—n-butane fraction which goes to the No. 2 Alkylation Plant for further processing; the second column depentanizes the debutanized stock; the third column splits the pentanes fraction into iso-pentane and normal pentane; the fourth, fifth and sixth columns produce as overhead products respectively a hexanes-isoheptane cut, an n-heptane cut, and an iso-octane cut. The bottoms from the sixth tower are n-octane and heavier. The respective products are segregated for use to the best advantage in military aviation products, motor gasoline, and for further processing.

The dimensions of the columns

LUNKENHEIMER VALVES
whatever type..mean better service

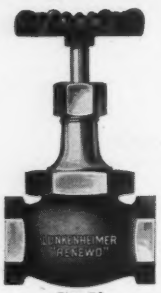


Fig. 73
Bronze "Renewo"

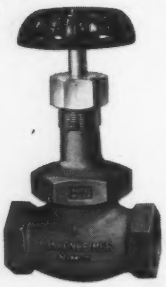


Fig. 123
Bronze "N-M-D"
(Non-Metallic Disc)

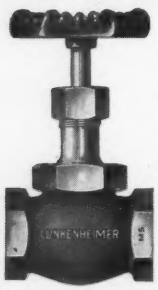


Fig. 407
Bronze Regrinding

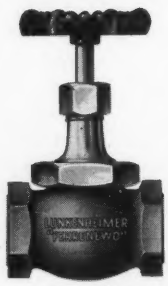


Fig. 1021
Iron Body "Ferrenewo"

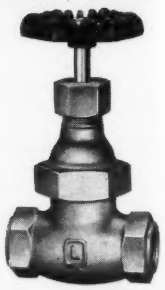


Fig. 1720
Steel Globe
(Bonnet-Thread-Bushing)

Fig. 2125
Bronze Gate
Double Wedge Disc

Fig. 2129
Bronze Gate
Single Wedge Disc

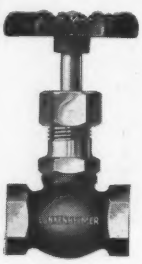


Fig. 906
Bronze
Needle Valve

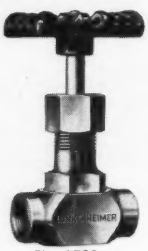


Fig. 1730
Stainless Steel
Needle Valve

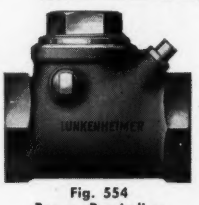


Fig. 554
Bronze Regrinding
Swing Check

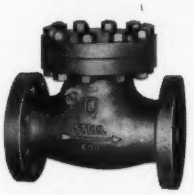


Fig. 1495
Steel
Swing Check

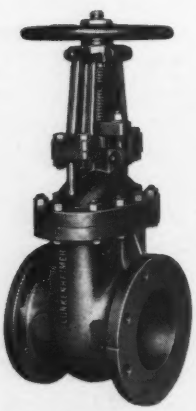


Fig. 1430
Iron Body Gate

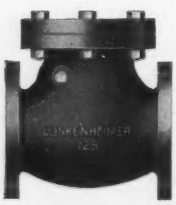


Fig. 1790
Iron Body Swing Check

Fig. 1640
"King-clip" Gate

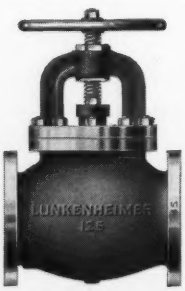


Fig. 1123
Iron Body Globe

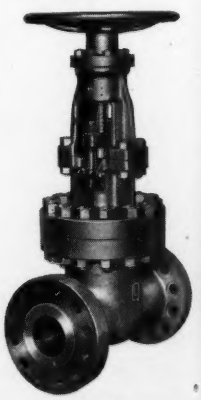


Fig. 1650
Steel Gate

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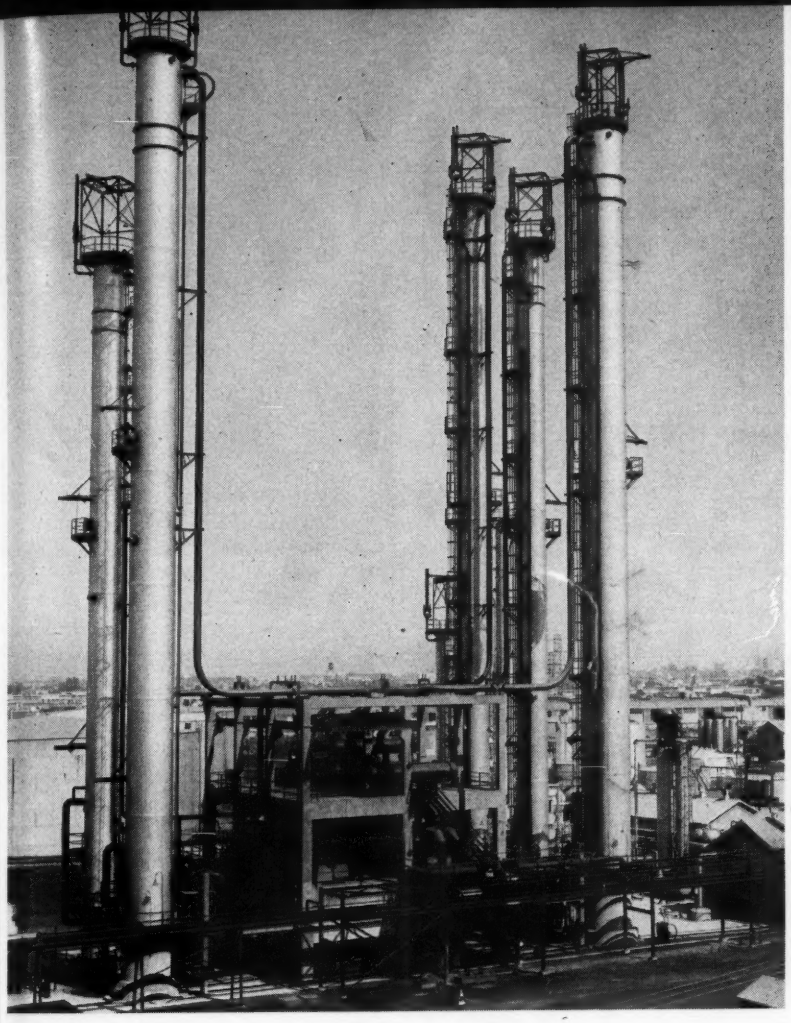

are as follows: debutanizer 6′ - 6″ x 67′ - 8″, dependanizer 6′ x 129′, deiso-pentanizer 8′ x 162′, deiso-heptanizer 9′ x 160′ - 6″, deheptanizer 7′ x 163′, and deiso-octanizer 6′ x 145′.

Fluid Catalytic Cracking Unit

A new unit for the production of certain desired hydrocarbon fractions by the use of catalytic cracking was installed and is now starting operation. This unit consists of a reactor, a regenerator, a precipitator, a bubble tower and fractionating equipment. This operation consists of contacting the charge with a powdered synthetic catalyst at temperatures between 950°F and 1050°F dependent upon the final products desired.

After the reaction between the catalyst and the oil charge, which

Left—Superfractionator designed to produce 6 closely fractionated hydrocarbons.

Below—Fluid Catalytic Cracking Unit with fractionating section in left background. 30000 GPM induced draft cooling tower in foreground.

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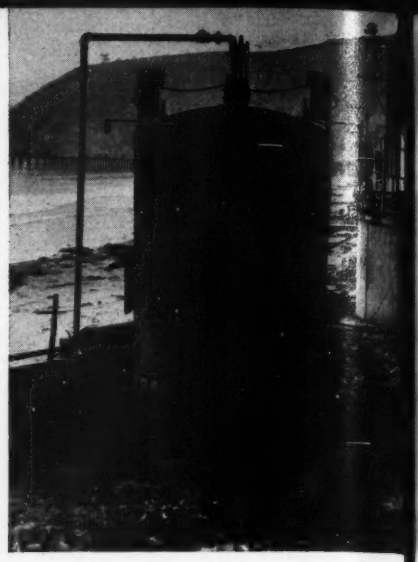
LOOK AT IT THIS WAY: Petreco Field Engineers are always near you. Their years of experience, and contact with the problems which have confronted others may benefit you. Discuss your emulsion problems with a Petreco engineer.

LOOK AT IT THIS WAY: Petreco gives you Field Testing. We are not merely satisfied to bring samples of your oil into our plant for tests, but actually run the oil through a miniature unit, right on the job where we can discuss the thing with you on the derrick floor.

LOOK AT IT THIS WAY: The Petreco Research Division is continually analyzing, checking and experimenting to best fit the Petreco process to your particular situation. Changes in procedures to meet the characteristics of your crude and type of plant layout are a common occurrence.



Petreco sells a service, not a product. True, specially designed Petreco units are employed but our future revenue depends on having the Petreco process function as nearly perfect as we can make it for the conditions which exist on your lease. Our profit depends on the number of barrels of net oil which can be run through our units. That's why, when installation of equipment is complete, when instructions for maintenance and repair are understood, we don't leave you on your own. We assist you, guide you, work with you on your dehydration problems from start to finish. In any area where we have equipment installed doing a job of reducing emulsion, Petreco-trained men are at hand. Whenever electrical power may fail, when high winds may damage or destroy tankage and hookups, when regulators go bad—day or night, raining or snowing, we will be there. Our service begins where others stop.

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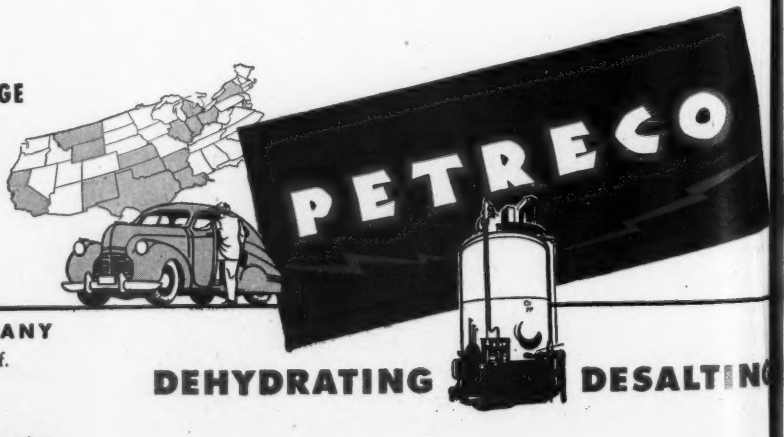
Resident field engineers are located in refining and producing centers wherever Petreco processes are in use. These men are specialists, and are always available to assure maximum operating efficiency, and to give helpful advice and assistance on any problem of dehydration or desalting.



PETROLEUM RECTIFYING COMPANY
530 West Sixth Street, Los Angeles 14, Calif.
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648 Edison Building, Toledo 4, Ohio
Representatives in principal production and refining centers

by the way, is a distillate having a distillation range between 375° to 900°F, the vapors are cooled and go to the fractionating side of this unit where the catalytic distillate is depropanized and split into butylenes, pentylenes, C_6 - 185°F and fractions boiling between 185°F to 210°F; 210°F to 300°F; 300°F to 400°F as well as light and heavy cycle gas oils. These products are delivered to storage for further processing at the alkylation units, treating plants, and other operating department.

This fluid catalytic cracking operation is unique in its mechanical control apparatus. More than 500 control instruments are in use on this unit, the failure of any one of which could seriously affect the efficient operation of this equipment.

New Alkylation Unit and Feed Preparation Unit

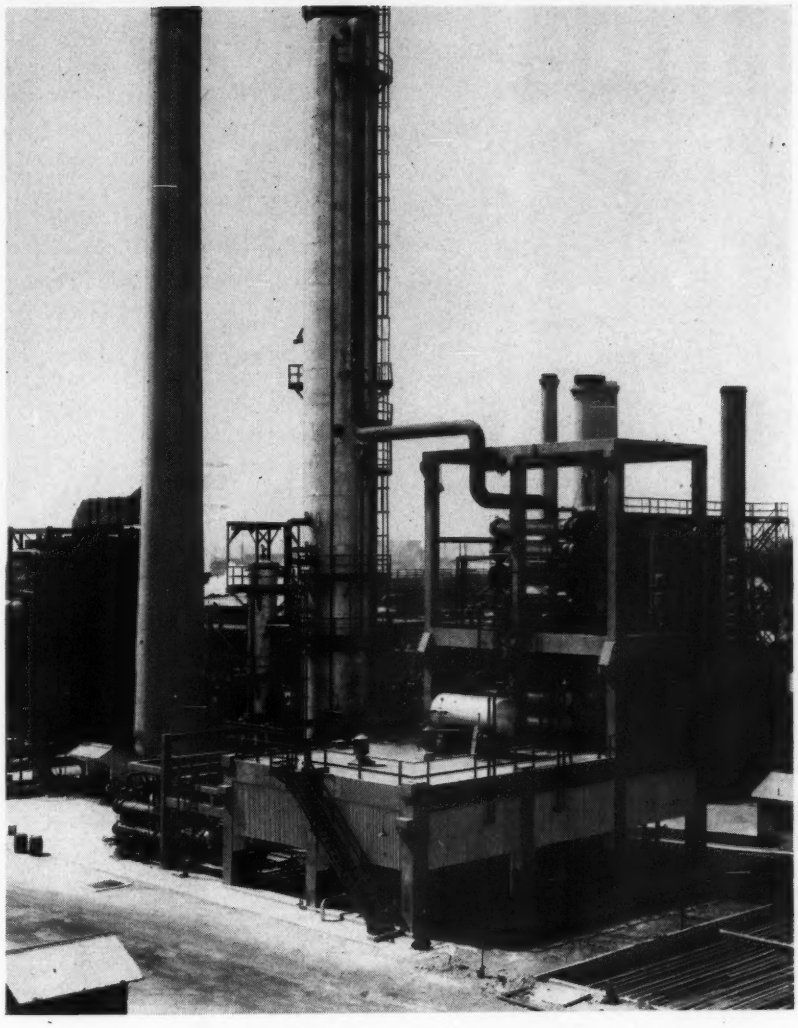
The new Feed Preparation Unit is used to improve the quality of both the thermal and catalytic olefins prior to their use on the alkylation units.

A caustic wash is given the thermal butylenes for mercaptan removal and a weak acid treatment is given the thermal pentylene for removal of diolefins. A rerun operation is provided for the removal of any polymers which might be produced in the weak acid treating operations.

The catalytic butylenes are given no treatment of any kind. The calytic pentylenes are caustic washed for mercaptan removal and also are given a weak acid treat for diolefin removal with a resultant rerun for removal of polymers.

The following columns are included in the Feed Preparation Unit: a 3′ and 5′ x 88′ - 6″ primary depropanizer, 2′ x 38′ thermal olefin and 3′ - 6″ x 42′ catalytic pentylene caustic washers, a 3′ x 26′ caustic regenerator, a 3′ and 4′ x 76′ primary debutanizer, and a 3′ x 41′ - 6″ rerun tower.

The new alkylation plant facilities consist of the necessary fractionating towers, acid contactors, neutralizing equipment and rerun stills to permit the combination of olefinic butylenes (C_4) and pentylenes (C_5) with iso-butane to produce alkylate which is the base for the manufacture of 100 octane aviation gasoline. During this process depropanization, deiso-butanization, and debutanization of either the charge or the resultant products take place as well as a final rerun operation to eliminate the polymers produced in the alkylation process.



Crude distillation and naphtha rerun unit.

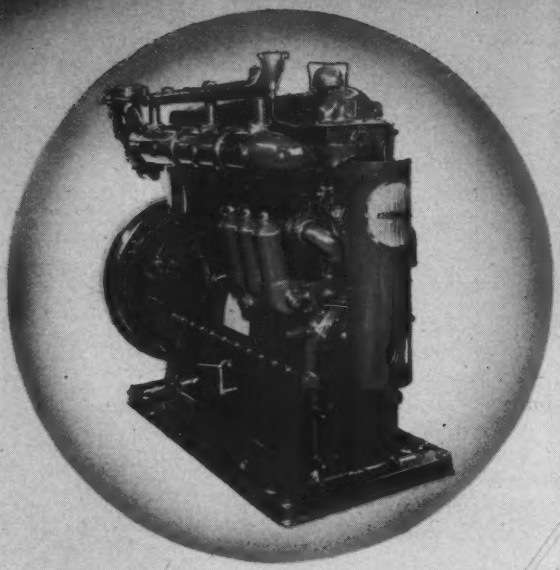
The equipment in the new alkylation unit consists of 4-Stratco Type 50 contactors, an 8′ x 128′ product debutanizer, a 10′ x 162′ - 6″ deiso-butanizer, a 6′ x 87′ depropanizer, and a 7′ x 63′ final fractionator.

As a result of this new equipment The Texas Company can process 42,500 barrels per day of crude oil, can produce more than 12,500 barrels per day of aviation gasolines, of which more than 10,500 barrels daily is 100 octane gasoline, can produce 2,000 barrels of additional military gasolines other than aviation grades as well as supply its essential civilian demands.

It may be of interest to note that more than 50 per cent of the total gasoline production at the Los Angeles Works of The Texas Company will be of aviation grade and more than 65 per cent of its total gasoline manufacture is for the United States military forces.

With the new facilities completed and operating, The Texas Company can well be proud of its Los Angeles Works and this plant's efforts in the production of critical petroleum war products.

HALL-SCOTT POWER



Hall-Scott
Series 400
INDUSTRIAL
ENGINE

The Hall-Scott Series 400 engine has been carefully designed for industrial and truck service. Where real power, and continuous operation are required, these engines have proven their worth. Careful selection of materials and inspection of every part, are partly responsible for the satisfactory results operators are obtaining throughout the world.

Kenworth truck operating Franks hoist, owned and operated by Richfield Oil Co.
Powered by Hall-Scott Series 400 Engine

HALL-SCOTT MOTOR CAR COMPANY

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Portable Masts-Derricks Facilitate Well Servicing

Portable hoists have been used for servicing producing wells for many years but it was not until the advent of collapsible masts or derricks that the complete portability so highly desirable under many conditions was obtained. In earlier jobs where portable hoists were used, either the drilling derrick was still standing or had been replaced with a production derrick and thus provided the means required for servicing operations. In some cases where the job was light, gin poles were set up to serve the purpose. With the present portable equipment now available, however, all that is needed is access to the well.

Like all innovations of obvious merit, the completely portable servicing unit equipped with mast or derrick did not happen overnight. The progress in design, however, has been exceedingly rapid. The idea was sound; so manufacturers went immediately to work improving designs with an aim toward providing operators with the most efficient equipment possible. Not only were the main parts such as hoists, masts or derricks, and prime movers improved but also the auxiliary equipment necessary for operation. Moreover, attention was paid to the arrangement of the various parts and means were taken to coordinate all equipment into a smooth-functioning whole which would not only facilitate operations but increase speed and provide greater economy. Safety features were also given due consideration. The result has been that today the oil industry is offered compact units which perform routine jobs at practically any depth with economy and speed and which meet emergencies with least delay. Many of the units can also be used for drilling and this adds to the value of the equipment when a little rotary work is necessary while working in a producing well.

The oil industry is noted for never being satisfied with the equipment it has. Manufacturers are constantly improving their designs and those making portable servicing units, in spite of the rapid development of this equipment, are thus constantly improving their products. The latest designs are therefore of interest to all production men. There are different types of portable units as well as different makes since requirements vary so widely in oil field operations; but it is impossible

Fig. 1—The latest design of Franks Model 7000 D.D. Self-Propelled Telescoper powered by a Hall-Scott Model 400, 250 hp. gas-gasoline engine.

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With Kobe hydraulic pumping, it's no longer necessary to visit every well on the lease to make your daily operational checks. Modern centralized control has changed all that. With Kobe, the pumping of any number of wells is handled at *one* convenient location. Just glance over the surface gauges and you get a quick, accurate operating report. Before your eyes is visible *every stroke* of the Kobe production unit, though it may be a mile away and 10,000 feet down. So why walk when Kobe's *fluid power* brings the well head right to YOU?

Centralized control is only ONE of the many outstanding advantages of hydraulic pumping. Besides saving manpower, Kobe pumping equipment saves valuable horsepower because of its higher efficiency. The flexible nature of *fluid power* makes it more readily adaptable for varying types of production. Kobe's light, compact design makes it easy to transport, easy to install. There are fewer moving parts, thus assuring longer life and lower operating costs. All these important Kobe features are combining to revolutionize pumping techniques throughout the principal producing areas.

If YOU are not familiar with the many advantages of hydraulic pumping, then by all means send for the new booklet, "Modern Oil Well Pumping With *Fluid Power*." It tells briefly, clearly and simply the fundamental ABC's of this new method. It's a story that will prove valuable to you. Ask any Kobe field representative for this new booklet. Or write to this office for one—TODAY.

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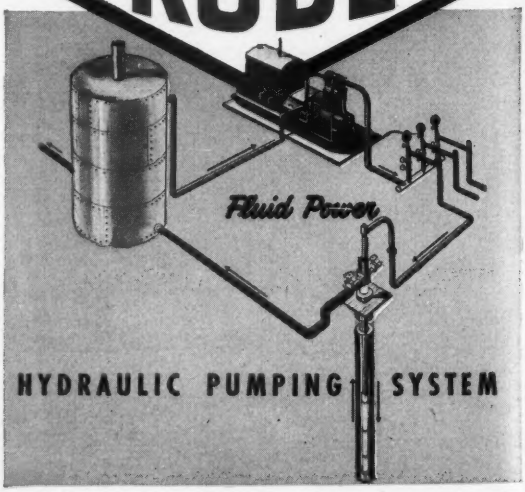


HYDRAULIC PUMPING SYSTEM

to describe herein all types of portable outfits or the various makes of different types. Therefore, only a few representative examples of the advanced designs are illustrated and some of the salient features discussed. Complete descriptions of the equipment and specifications of the parts are unnecessary because these are fully presented in manufacturers' catalogs.

Some of the portable well servicing units are self-propelled, being mounted on trucks and using the truck engines to power the hoist and transportation through power take-offs. Others have an internal combustion engine mounted on the truck to furnish power for the hoist. Some are equipped with electric motors and operate on current taken from commercial electric service lines. Those with engines mounted on the truck may have the service unit, comprising essentially the hoist, mast and engine, skid mounted; with others it may be built integrally with the truck body. Power for raising the mast or derrick may be provided by the engine servicing as prime mover for the rig or by a smaller engine installed for that service alone.

Self-Propelled Heavy Duty Type

The servicing unit shown in Fig. 1 is equipped with a 90-ft. tubular, telescoping type derrick which has a capacity of 200,000 pounds. Mounted on a truck with dual rear axle drive, this is believed to be the most powerful self-propelled combination servicing hoist and telescoping derrick yet built. The machine is powered by a Hall-Scott Model 400 engine developing 250 hp. at 1650 r.p.m. and having a displacement of 1090 cubic inches. This powerful engine was developed at the same time as the Hall-Scott "Defender," a V-12 engine using the same cylinder and motor parts as the Model 400 six. (The "Defender" is being used to power various rescue and fighting craft for the U. S. Navy.) The engine in the servicing unit is equipped with water-cooled manifold, spark plug shields, oversize radiator and combination gas-gasoline carburetor. The transmission provides five speeds forward and one reverse. The truck and hoist are driven by the same engine through a Franks gear split shaft power take-off.

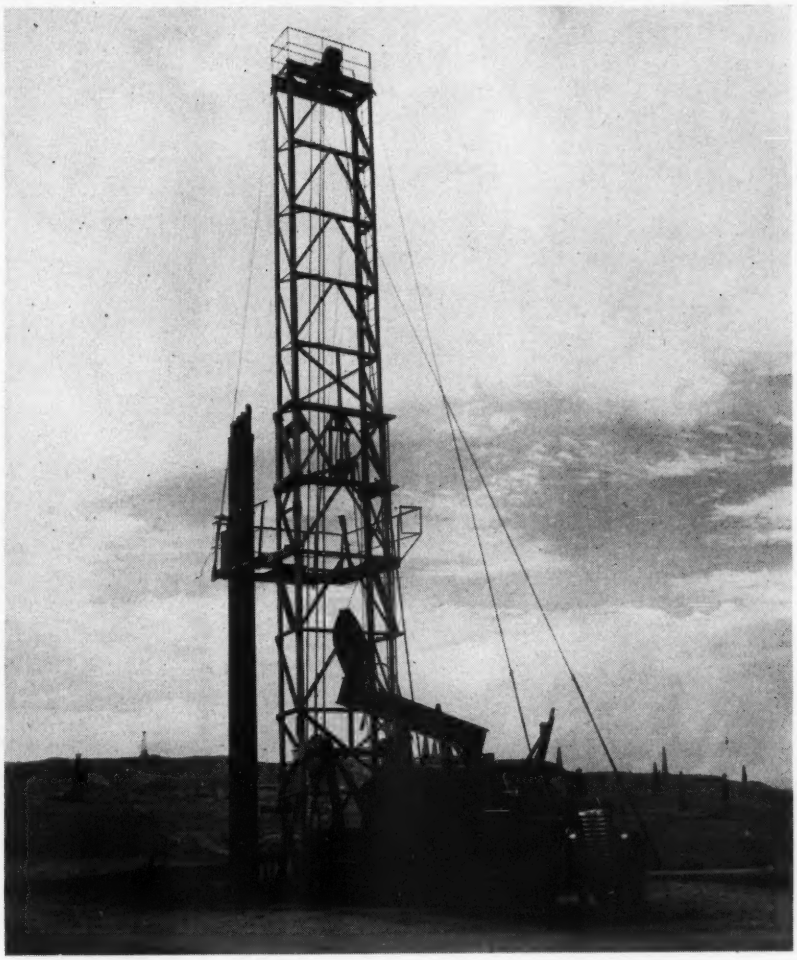
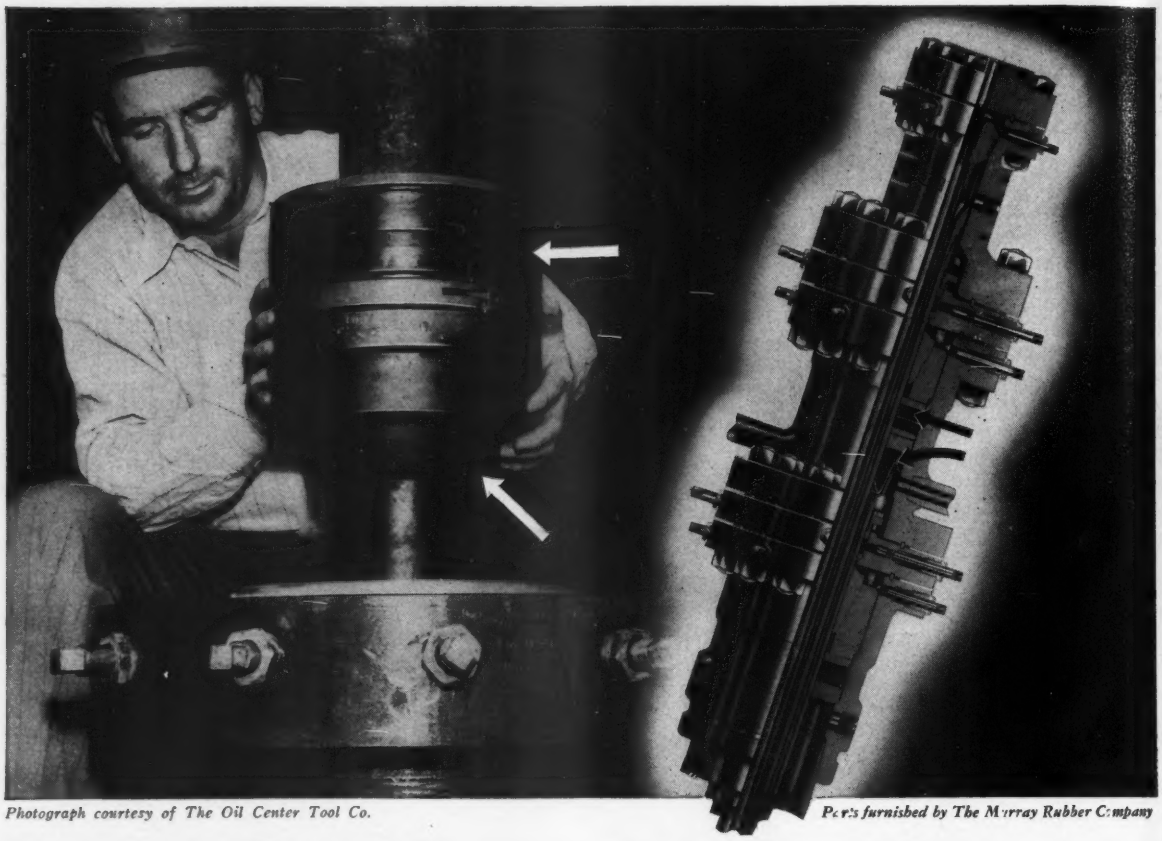


Fig. 2—Showing the design of the Ideco telescoping derrick furnished with different heights and capacities for well servicing operations.

The derrick is constructed with legs of X4130 cold-drawn, seamless aircraft tubing and is raised by means of a built-in, self-locking power screw mechanism. It is equipped with a 5-sheave, ball-bearing-mounted crown block. A sliding, adjustable tubing platform accommodates stands of various lengths. The unit travels fully equipped, the blocks being carried strung and the rod basket being permanently hung. Guy wires are carried reeved along the side of the machine and a gas hose is reeled on its own hollow shaft reel built into the unit.

The hoist includes a main drum and sand reel and is equipped with final friction drive clutches (10 in. wide), fully equalized dual brakes and dual controls. These controls include a set at the hoist position to permit using the hoist at wells equipped with conventional derricks, the telescoping derrick being removed from the machine during such operation. A second set of controls is located at the derrick leg to provide unimpaired vision of the block and well head. These controls are operated by air.

A new and unique control system was developed for this type of machine and is first being used on this unit. Action of the high-low friction clutches in the end of the drums and of the throttle is controlled by air through the operation of a single handle. Clutch and throttle may be applied simultaneously or separately. Moving the lever to right or left engages the clutches while a forward and backward motion actuates



Photograph courtesy of The Oil Center Tool Co. *Parts furnished by The Murray Rubber Company*

Hycar Handles Multi-Zone Casing Head Separations

ONE problem in Multi-zone well production separation is in the casing head where the resilient packing material has a difficult and tricky job to do. For example, recently in several wells in one Gulf Coast field the packing material had to separate dry gas under 3800 lbs. pressure p.s.i. and high gravity distillate flowing under 3000 lbs. pressure p.s.i. To handle this difficult situation Hycar was selected by The Oil Center Tool Company for use in its "C-9-D" Casing Head. The upper arrows in the illustration point to two hinged rings of Hycar resilient packing, while the lower arrows show the Hycar stripper type packoff. Both types are constantly exposed to oil and/or gas upon the completion of a well.

Hycar was selected for this job because of its established superiority in resistance to petroleum products. Hycar is a well-known name in oil fields where its petroleum and acid-resistance, its abrasion-resistance and its high tensile strength have made it the ideal material for gate packers in mud line valves, oil well tubing packers, coal rings, packing for well heads, gaskets and many other products where these properties are vital.

Ask your supplier to furnish you parts made of Hycar for actual tests in your own applications. Learn for yourself that Hycar can help reduce operating costs—that it's wise to use Hycar where the going gets tough. *Hycar Chemical Company, Akron 8, Ohio.*

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1. Resists oil and gas—even under high pressure.
2. Resists action of abrasive-laden fluid under high pressure and moving at high velocity.
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4. Makes a positive, leak-proof seal, even after a long period of service.
5. Provides high elasticity.
6. High tensile strength.
7. Minimum tendency to cold flow and compression set.

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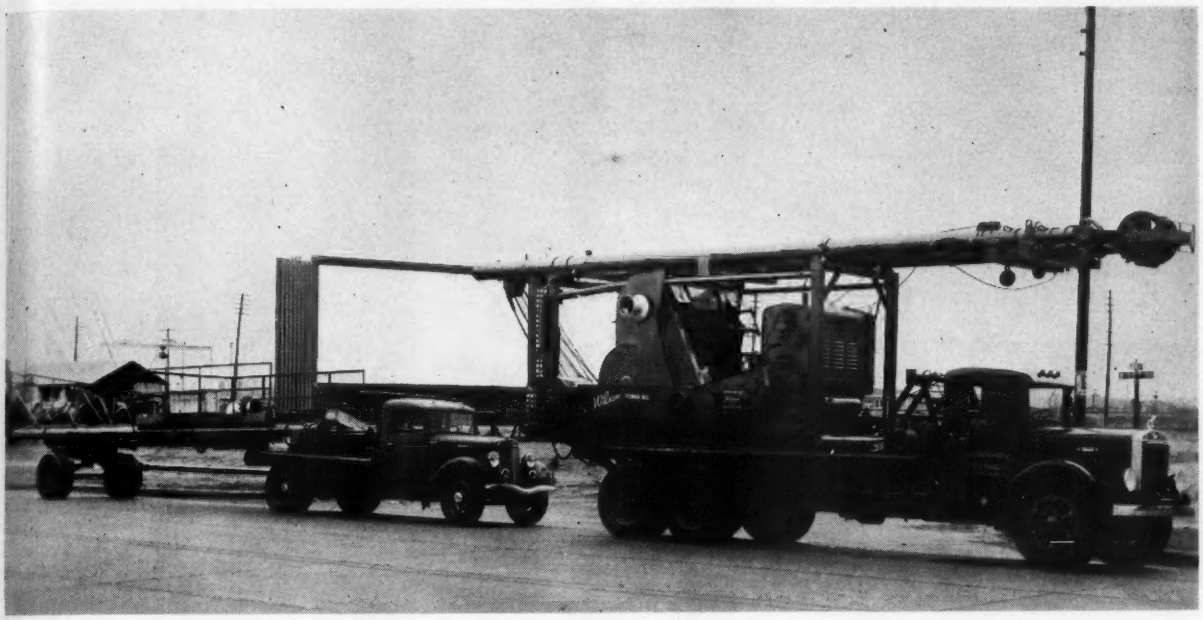

Fig. 3—A Wilson Double Telescopic Mast Pole mounted with hoist and prime mover as a unit on skids and transported by truck.

the throttle. This simplifies the control for the operator since he need only keep one hand on the brake and the other on the combination lever to have complete control of the machine.

The use of high-low friction clutches in the ends of the drum, operated through the 5-speed transmission, makes 10 speeds available to the main drum and widens the range of line speeds and pulls. The maximum bare barrel line pull in low low is 59,300 lb. with a line speed of 118 ft. per minute, while the maximum bare barrel line pull in high high is 4370 lb. with a line speed of 1600 ft. per minute.

The application of an engine of such power as the Hall-Scott 400 to a final-drive-friction-clutch-equipped, air-controlled hoist makes it possible to hoist loads in the higher transmission speeds and thus reduce trip time.

Derrick Design for Various Requirements

In Fig. 2 is shown a portable derrick being used for servicing a 3000-ft. well. This particular design is manufactured in five heights—56 ft., 61 ft., 76 ft., 86 ft., and 90 feet. Net hook capacities range from 60,000 lb. to 250,000 pounds, so either light or extremely heavy service can be performed by employing the proper size of this type derrick. The shorter derricks may be mounted on trucks as self-propelled units or on trucks with engine or on semi-trailers; the tallest is always mounted on a semi-trailer with separate prime mover on the trailer as part of the rig unit. The derricks are of the telescoping type and all except the 90-ft. design are erected by the travelling block. The 90-ft. derrick is raised in collapsed position from the horizontal to the vertical by means of two hydraulic rams; the upper section is then raised to any intermediate height or to its full extent by cable and power winch.

The hoisting engines used with the different height and capacity derricks of this design range from 85 hp. to 225 hp. Crown blocks are furnished with from three to five 24-in. sheaves and use from 3 to 6 lines. The racking platforms are at 27 ft. for the shortest mast up to 55 ft. for the 90-ft. derrick, 30-ft. stands being used with the 56-ft. and 61-ft. derricks; 44-ft. stands with the 61 ft. and 76 ft. derricks; 60-ft. stands with the 76-ft., 86-ft. and 90-ft. derricks; and 66-ft. stands with the 86-ft. and 90-ft. derricks. The racking capacity of 2½-in. pipe ranges from 4620 ft. for the lowest derrick to 13,000 ft. for the tallest. The 30-ft. sucker rod capacity is from 2500 ft. to 5000 ft. per side. The highway widths of all are less than 8 feet.

In this derrick design the four legs are parallel and permit the leg angles to serve as guides, making auxiliary guide rails unnecessary. The tower is constructed with one open face to clear the travelling block. The travelling block is carried strung up in the mast during transportation. When used at wells where derricks are in place, the portable derrick is quickly detached from the hoist unit.

Telescopic Mast Poles

Both single and double telescoping mast poles are being used for servicing wells. One of the double mast type is shown in Fig. 3. In this particular design the mast, hoist and engine are mounted as a unit on skids. The extended heights at which these masts are furnished range from 45 ft. to 60 ft. and have calculated capacities from 28,600 lb. to 103,400 pounds, the largest being rated at 120,000 lb. load capacity with back bracing. The mast is equipped with 18-in., 24-in. or 30-in. sheaves and from three to five sheaves in line with an extra sheave on top.

The racking platform is separately carried and has a "Dolly" type of rod hanger which permits pulling the rods and hanging them out of the

(Continued on Page 25)

More Equipment
WHEN IT'S NEEDED MOST

HERE at Crum-Brainard, we're keeping pace with changing oil industry conditions by devoting more and more of our production capacity to rock bits. Not only are we manufacturing more bits, but we are making them to operators' individual requirements... The eight basic types shown here* give a full range selection to cover all general and many unusual formation conditions, however some localities present drilling conditions peculiar to themselves. When this condition prevails the operator may conceive of and wish to try some special type of cutter made to his own conception. Send us a description of your formations and suggestions of the desired rock bit characteristics and we'll gladly make a bit to meet your specific needs. Buy your bits on performance!

*In numerous competitive runs all over the world, Crum-Brainard bits properly selected for local conditions have out-performed all other types.

Type "OSS" for soft, sticky formations

Type "OS" for shale and medium sand rock

Type "OW" for medium hard shale

Type "O" for ordinary surface formations

Type "CO" for abrasive limes and shales

Type "C" for hard and abrasive formations

Type "CF" for extremely hard formations

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BRANCH WAREHOUSES

After the war - what?

In what kind of a situation will the Western oil industry find itself after the war? This question is being asked in all quarters in order to gauge the impact of the return to a peacetime business structure.

Many views have already been expressed. Some are uncertain while others are optimistic. What follows is the result of an investigation carried out by the California Oil World in order to develop a broad estimate of what the period immediately following the war can look like.

Any analysis is subject to limitations and errors because man cannot foretell the future, but he can reason inductively if guided by common sense. The California Oil World makes no alibis or excuses for what the future may prove wrong in this discussion. What it has done is to call the trends as it sees them, and to submit certain facts for examination by those who are organizing their own post-war estimate.

Confidence in Future Justified

It is evident that all phases cannot be considered in detail. Some of the major sections of the analysis cannot be filled in as completely as desired. But even if considered conservatively, the trend which runs through the findings urges a confidence in the future which does not have to be viewed through heavily tinted glasses.

Problems will of course arise which will demand careful consideration and industry cooperation for adequate solution. The cessation of hostilities suggests a drop in Pacific Coast crude output, with the attendant shrinkage in all departments. But good reasons point to the possibility that the drop may not be too sudden and damaging, and that the eventual reduction will be gradual enough to be in balance with other internal adjustments.

Postwar Shrinkage to be Short-lived

Change is already in the air. Every business is busy with considerations ranging from post-war employe requirements to what kind of inventories to have on hand. This presages a period where some confusion and shrinkage can exist because of the interplay of many factors which will be bringing the nation's war effort to a stop. It is the considered opinion of authoritative sources that such circumstances are not to be taken as a major trend, but rather to be viewed as the atmosphere immediately at the close of hostilities. This is seen as a period in which sound business policies should be established for handling the activity which will inevitably follow.

Exploration and Drilling to Increase Inactivity

All during the war, Pacific oil companies who have an eye to the future have been carrying on prospecting and leasing with every facility at their command. Tremendous acreages all the way from Imperial Valley through Northern California's Sacramento Valley, Oregon and Southern Washington have been staked out for wild-catting. It is true that a good many wildcats have already been drilled throughout these areas, but sound opinion has it that the surface has barely been scratched. Oregon and Washington prospects are viewed with optimism. Such a view makes sense because until recently the War Production Board has drastically restricted the oil industry in its allocations of steel. Added to this is the critical manpower shortage with special reference to drillers and all of the other classifications of labor for making up drilling crews. Last year California drilled 1672 wells, the greatest number ever drilled in one year. 1944 should witness at least an equal number and with the possibilty that last year's total may be exceeded.

As manpower and material become more available the exploratory program will increase in activity. Factors affecting such a stimulation of drilling activity could be gone into in great detail, but it is for those well acquainted with oil industry operations to see that such a phase is entirely in order. It is known that major and independent oil companies alike have drilling schedules which cannot be carried out with any speed at all, and in many instances have not even begun, because of the lack of men and materials. In these instances adequate budgets are available to proceed when the aforementioned obstacles lessen.

Oil Production Drop Can Be Gradual

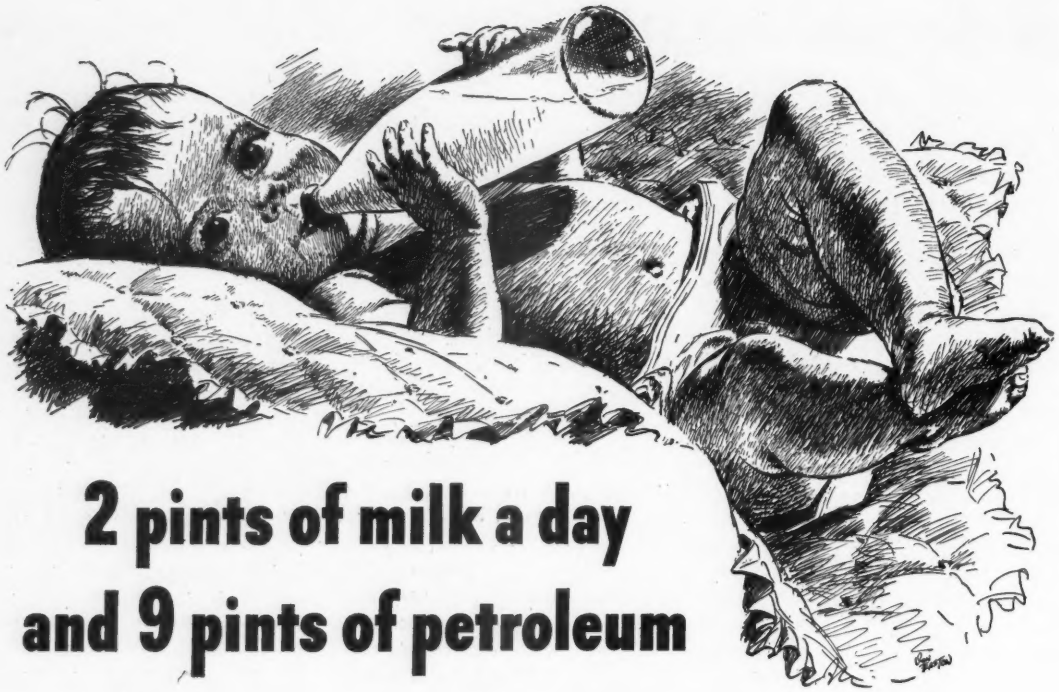
The present Pacific Coast crude oil production is about 850,000 barrels daily, as against a pre-Pearl Harbor production of about 600,000 barrels. There are those who believe that the close of the war augurs a calamitous reduction in crude output of close to 250,000 barrels daily, with an attendant damaging effect to the whole western oil business. It is true that a reduction in crude output is inevitable but there are also good reasons for viewing the shrinkage as a business change which can be handled without dangerous complications.

South American Drilling to Increase

It is almost certain that China, the Dutch East Indies, and other Pacific areas will have to be given post-war reconstruction assistance. This should establish a market for substantial volumes of petroleum products. South America is an oil-exporting part of the Western Hemisphere, and her ability to produce refined products is almost nil. It is true, however, that a South American drilling boom is likely to follow the war because many American companies have been busy organizing their holdings for just such post-war operations. But it will require years for these developments to become formidable competition. The oil tool companies, however, are likely to be profitably affected by South American developments and they are undoubtedly preparing to handle business from this direction.

Future of Pacific Coast Reserves Serious But Not Hopeless

The question of just what the future of Pacific Coast crude oil reserves is to be is indeed a serious one, but not hopeless. A recent report on exploratory wells in California completed in the first quarter of 1944 gives some interesting facts. What follows refers to exploratory



2 pints of milk a day and 9 pints of petroleum

1 In 1940, our last normal year before the war, the American people consumed 55½ *billion* gallons of petroleum products. This amounted to 427 gallons per person—9 pints a day for every man, woman and child in the United States.

2 By comparison, the people of Europe consumed 30 gallons per capita in their last peacetime year—1/14th as much—and the rest of the world 13 gallons per person—1/33rd as much. Since most petroleum products are used to power or lubricate machines, these figures will bear remembering.

3 For they mean that the daily life of the average American is just about 14 times as mechanized as the daily life of a European. This may or may not mean that our life is 14 times *better.* But the fact still remains that we *use* the machines.

8/10 cent x 427 = $3.42

4 So someone has to furnish the petroleum to keep them going. In this country there are 8,267 *individual* oil companies working full time at this job. During 1940 they made a profit of 8/10ths of a cent per gallon on the 427 gallons of products you used—$3.42.

5 The rest went right back into the costs of producing the products and getting them to you. *Theoretically,* if the government owned the oil industry, you would have saved that 8/10ths of a cent. (Same costs but no profit). Although there's never been a government bureau *yet* that was run as efficiently as a business.

6 But it would mean the end of *competition;* of the *incentive to constantly improve products and lower costs* which has been the driving force of our American system; and, worst of all, of *individual freedom.* Under the circumstances, that's quite a birthright to sell for 8/10ths of a cent on the gallon.

UNION OIL COMPANY
OF CALIFORNIA

This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Bldg., Los Angeles 14, California.

AMERICA'S FIFTH FREEDOM IS FREE ENTERPRISE

wells alone, and not to the overall drilling. Of 57 wild cats drilled for oil, 15 were successful. Of 10 wild cats drilled for gas, 5 were successful. These figures are far from being as high as desired but they do indicate that oil and gas reserves can be steadily added to at a good discovery rate. This would indicate a high quality of prospecting which can be expected to continue actively.

Repair and Secondary Recovery Programs Should Be Active

After the war much will have to be done in the repair and maintenance of the older producing properties. Thousands of wells need a thorough going over. New pumps are needed. Miles of sucker rod need replacing, and a host of other changes and repairs covering the whole inventory of oil well supplies will enter into the oil well reconditioning program.

California has never given serious and widespread attention to secondary recovery procedures. One water-flooding project is already under way with a second one projected. Others may choose to follow this trend in depleted areas. Gas repressuring, or pressure maintenance, is being carried out in one section of the San Joaquin Valley. Such operations may spread to other areas.

In spite of considerable work done on the chemical treatment of oil wells, much still remains to be explored. It is probable that hundreds of wells will be given treatments in an effort to clean perforations, remove wax, and disintegrate mud cake. Gravel packing procedures will undoubtedly be reexamined in relation to wells with high production costs due to sandy oil.

Refining Should Not Suffer Seriously

Opinions are rife as to what the period immediately following the war will mean to the Pacific Coast refiner. Millions of dollars have been spent on refinery installations in order to meet the military demand for aviation gasoline and many other petroleum products. Many of these large installations function because of the existence of government contracts for their entire output. To many this is suggestive of a critical curtailment of refining when the fight is over. The refiner is of course, dependent for his stocks of crude oil from what the oil producer can bring to the surface. If the oil isn't there, the refiner doesn't get it.

There are good reasons for believing that the refiner is not going to be seriously damaged in the postwar period. Most of the processes involving catalytic cracking, alkylation, and many other ingenuous departures from older methods were on their way into the refinery, war or no war. The national emergency, however, created the immediate demand for the application of these processes sooner and to a greater extent, than would have taken place had the war not come. This would be indicative that the older processes will be used less and postwar refining will go ahead with the new processes. Units which were entirely devoted to military demands will then supply to industry and the motoring public, grades of products formerly not available.

Refiner Must Replenish Surface Stocks

The refiner is likely to be a factor in easing the curtailment of crude production for a while in order that the replenishment of above-ground oil stocks can take place, for these have been drawn upon heavily. Civilian market demands for oil products are not likely to curtail sharply and there is every reason to conclude that the postwar demand is likely to be up. Thousands of service stations will reopen as the motoring public is permitted more gasoline consumption. In California alone over one million "A" card drivers will be demanding engine repairs, ring jobs, and a host of other mechanical adjustments which they denied their automobiles under rationing. One authority estimates that ten million new automobiles will have to be manufactured to reestablish the nation's prewar transportation level. California, Oregon and Washington represent about 12 per cent of the nation's passenger car and truck registration. On this assumption the Pacific Coast would absorb one million two hundred thousand units of the new passenger car and truck output. If Idaho, Montana, Nevada, and Arizona are included, an additional 160,000 cars and trucks can be added to the total.

Refiner Can Add to Oil Reserves By Process Efficiency

Refining ingenuity may also have considerable to say about the future of oil reserves due to the utilization of gas in the manufacture of motor fuels. Many indications point to the fact that the refiner has ushered in the age of gas utilization. He is already able to take gaseous substances of one kind and catalytically convert them into substances of another kind with motor fuel value. He has also learned how to use hydrogen gas in many different ways. Hydrogen can be obtained from water. These and other developments indicate that many of the refining processes which have been geared to the war effort will be vastly improved to the point of contributing to the oil reserve due to the efficiency in the yield of fuel per barrel of crude oil and to the utilization of gas to the same end.

In conclusion, it is only fair to observe that there will be a reduction in crude oil output, there will be a reduction in refinery throughput, and there will be a major problem of adding to the Pacific Coast's crude oil reserve. But none of these difficulties detract from the overall conviction that the return to peace time business will take place without dire effects; and it is the California Oil World's opinion that those who keep their seats until the last act will be satisfied with the whole performance.

P. M. Pike Heads Hacker

Hacker Pipe and Supply Company announces a change in ownership. P. M. Pike has purchased the interests of Malleable Iron Fittings Company, J. R. Dickinson and Mrs. Kathryn B. Hacker.

Mr. Dickinson has resigned as President, Mr. Pike succeeding him. There will be no change in management or organization. Mr. Frank L. Barney is Vice President and General Manager, Mr. B. A. Munn is Vice President and Manager of Sales, Mrs. Kathryn B. Hacker, Director.

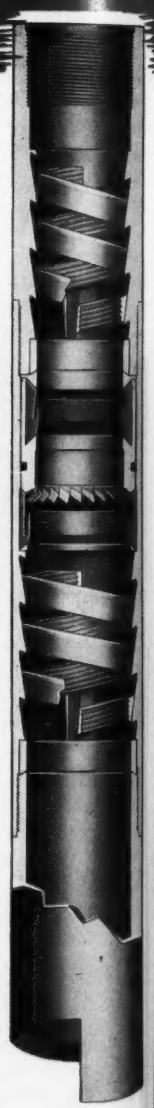
TIGHT SPOTS ARE EASY

FOR THE BOWEN OVERSHOT!

MAXIMUM STRENGTH for every fishing requirement, combined with compact construction and ease of operation, are vitally important advantages to look for in the overshot you use on fishing jobs. And Bowen radically departs from ordinary overshot designs to give you

. . . 1) A tool that will catch and pack off drill pipe, coupling or tool joint—whichever is up—*without making changes or adjustments*, and

. . . 2) A tool that can be used with maximum ease and safety under the tight hole conditions often encountered on overshot jobs.



THE BOWEN Releasing Overshot as ordinarily furnished is a two bowl tool equipped with guide, grapples, milling member and pack-off rubbers. The grapples are helical slips cut from solid steel tubing and are designed to give continuous contact with the fish over an unusually large area—*and to set and release to the right.* The manner in which they are mounted in the bowls enables the Bowen Overshot to have an unusually small O.D. without sacrificing strength—a vitally important point when fishing for large diameter pipe in small diameter hole! One popular model, for example, with an O.D. of 5½", will catch 4⅝" Full Hole pipe inside 6⅝" casing . . . and other sizesafford equal safety and convenience of operation in tight spots!

The Bowen Overshot is available with from one to *four* bowls to meet all conditions encountered—and in sizes for every pipe string. Also made for catching drill pipe, coupling, *or oversize drill collar.* Send for full information, and ask for your copy of a helpful booklet giving operating and maintenance instructions on the Bowen Overshot. There's no obligation at all!

24 hour service in all California fields

BOWEN FISHING TOOL CO.

SANTA FE SPRINGS, CALIFORNIA

VENTURA · BAKERSFIELD · AVENAL · SANTA MARIA

CASPER, WYOMING

F. H. Smith Advanced by Standard

Appointment of Francis H. Smith as an assistant general manager of Standard of California's manufacturing department was announced recently by George A. Davidson, Vice-president of the oil company. Smith has been manager of Standard's Richmond Refinery.

The new Richmond manager will be Richard K. Rowell, who has been manager of the company's El Segundo Refinery. Rowell will be succeeded there by W. W. Davison. Taking over Davison's work as assistant manager at El Segundo will be E. E. Lyder, while O. N. Miller will succeed Lyder as superintendent of the cracking division at El Segundo.

Smith, for many years a leader in Richmond civic affairs, became refinery manager in 1934. He started with Standard in 1913. Rowell entered Standard's employ in 1917. He advanced through various supervisory positions to the El Segundo managership in 1943. Davison has been with Standard since 1921 and became El Segundo assistant manager in 1943.

American Eastern Pet. Co. Formed

Formation of the American Eastern Petroleum Company, jointly owned by Standard of California and The Texas Company, was announced recently.

Harry D. Collier, president of Standard and W. S. S. Rodgers, chairman of board of Texas, stated American Eastern will manage foreign exploration and development activities of companies jointly owned by Standard and Texas with the exception of their Arabian and Bahrein interests.

Mainly, American Eastern will direct exploration and development of properties in Egypt, New Zealand and Australia, as well as the Netherlands East Indies after liberation from Japan.

Officers of American Eastern are: E. A. Skinner, president and director; E. M. Butterworth, vice president and director; F. C. Sealey, vice president and director; J. H. MacGaregill, director; C. E. Olmsted, director; H. G. Parker, secretary-treasurer and H. J. Hawley, manager of exploration. Headquarters will be in San Francisco.

Pac.-Western-Getty Start Northern Test

Pacific Western Oil Corp. & Geo. F. Getty, Inc., are preparing to drill Greenlee No. 1 on sec. 25-19n-2e, north of the town of Richvale.

Pictured at the recent meeting of the Materials Sub-Committee, District No. 5, reading from left to right: (Sitting) J. M. Grant, Purchasing Agent, Bell and Loffland, Inc.; H. H. Kelly, Director of Purchases, Richfield Oil Corporation; Sidney Covell, Manager of Purchases, Shell Oil Company; E. W. Beck, Manager of Purchases, General Petroleum Corporation of California; W. F. Pusch, Supervisor Pacific Div., Petroleum Equipment Suppliers' Association; E. H. Weaver, Assistant Manager of Purchases, Union Oil Company of California; A. P. MacKillop, Purchasing Agent, Tide Water Associated Oil Company. Standing: J. R. Thomas, Production Div., District No. 5, P.A.W.; C. H. Tuttle, District Purchasing Agent, Standard Oil Company of California, substituting for Lyman Waters, Manager Purchase & Stores Dept.; C. T. Reichert, Director of Materials, District of Materials, District No. 5, P.A.W.; J. A. Crawford, President, Youngstown Steel Products Co. of Cal.; Al Pateracki, Purchasing Agent, Wilshire Oil Company, substituting for Maurice A. Machris, Vice President; Philip Hauck, Division Purchasing Agent, Texas Company; Harold Howard, President, Howard Supply Company. Dana Jones, a regular member, was absent when the picture was taken.

M-4 MILITARY TRACTOR — Powered by WAUKESHA ENGINE—Co-operating with the Army Ordnance Department, Allis-Chalmers Tractor Division designed and is building M-4 Military Tractors. The power plant, a Model 145-GZ Waukesha Engine, was designed and is built by Waukesha Motor Company.

NOT MEN AND MULES . . . BUT

WAUKESHA

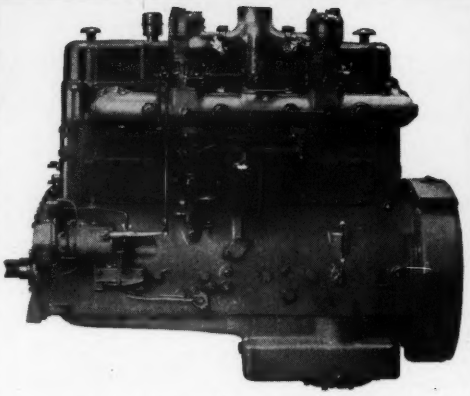
HORSEPOWER

HAULS HEAVY GUNS INTO ACTION

The motive power of men and mules that once hauled artillery isn't fast enough for this war. To get there *first* with superior fire power, our Field, Coast and Anti-aircraft Artillery must move faster . . . *and faster!*

Neither shell holes nor ditches, muck, mud nor mountains stop the new track-laying M-4 Military Tractors from moving the heaviest guns into position. Powered with Model 145-GZ Waukesha Engines, they have all the pulling power of a track-type tractor plus the smooth eager speed of a truck.

This is a wartime Waukesha Engine . . . a special development for combat service in heavy ordnance equipment . . . a super power plant built by Waukesha to out-power and out-perform any similar engine of the same size ever produced!



MODEL 145-GZ WAUKESHA ENGINE

Six cylinders, 5⅜ in. bore x 6 in. stroke, 817 cu. in. displ. Burns gasoline . . . is designed to use modern aviation fuels . . . develops high output. And it's really rugged! Crankcase and cylinder block cast as a single unit. Crankshaft is drop-forged steel, heat treated. Wet sleeve cylinders easy to remove and replace. Positive pressure oiling with built-in oil cooler. Thermostatic by-pass system maintains efficient operating temperatures, and assures quick warm-up when starting.

Right now all Waukesha production is for war work. After the war is won, peacetime Waukesha Engines will be ready for all your special requirements. Consult Waukesha engineers now about your future engine needs.

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MORE POWER FOR VICTORY

WAUKESHA ENGINES

Under the unit plan contract now in effect, work has actively started on the development of the Scalez and Mulinia zones of the Elk Hills field which comprises Naval Petroleum Reserve No. 1. Operations will be conducted under this contract between the U. S. Navy and Standard Oil Company of California and the work will be supervised by an operating committee consisting of one Navy representative, Commander H. P. Stoltz, and one Standard representative, Vic. Wankowski. Approximately 300 wells which will average 3000 ft. in depth will be drilled, with each zone being produced through individual wells. Some of the men active in the operations are shown above. They are, from left to right: seated, Victor Wankowski, Standard Oil Co. of California; Commander H. P. Stoltz, U. S. Navy; Al Tietze, Standard Oil Co. of California; standing, Lts. Reed and Domeroq, U. S. Navy; A. W. Noon, Chairman, Kern County Board of Supervisors; Lts. Eastman and Mettle, U. S. Navy.

Portable Masts or Derricks

(Continued from Page 17)

way so that the tubing can be pulled and racked back. This type rod and tubing pulling mast with racking platform is considered most practical for wells less than 4500 ft. deep and for handling 30-ft. singles of tubing.

California Plant Awarded Third Gold Star

A third gold star, awarded for continued achievement in producing materials for the U. S. Maritime Commission, will be added to the Maritime "M" pennant now flying over the Pittsburg Works of Columbia Steel Company, a U. S. Steel subsidiary, Joseph A. White, general superintendent, announced recently.

Notification of the award was received by White in a congratulatory letter from H. L. Vickery, Chairman of the U. S. Maritime Commission Board of Awards.

"To each and every one of the employees of your company who share in the winning of this award," Vickery stated, "I extend the appreciation of the Maritime Commission for their noteworthy contribution to the Victory Fleet Program".

The Pittsburg Works was previously awarded the Army-Navy "E", three Army-Navy "E" renewal stars and the Treasury Minute Man Flag.

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DON'T TRY CROWDING A GEOLOGIST 3 MILES DOWN A STRING OF CASING!

Don't try to stuff a geologist down the casing, because most capable geologists recognize that Gamma Ray and Neutron Logs get accurate information.

The point we're making is this: If it's information you're after, the best way to get it is by Radioactivity Well Logging because this service is especially adapted to determining formation characteristics in both cased and uncased holes. Formations are reliably logged through several strings of cemented casing. Results are not influenced by the conductivity of the fluid in the bore-hole. Logs made in open hole with very salty mud or with oil base drilling fluid, have full details and are easily correlated with logs made in wells which are already cased. Obey *this* impulse NOW! Send your name and address on a postcard, letter or telephone and we'll send you the complete story of Radioactivity Well Logging Service and it's applications to your problems.—DO IT TODAY!

Tomorrow's Tools--Today

LANE WELLS

Pioneers in Oil Field Electronics

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Radioactivity Well Logging licensed by Well Surveys, Inc., Tulsa, Oklahoma

Clyde Thomas Resigns

The resignation of Clyde Thomas, Legal Counsel for District Five, Petroleum Administration for War, to return to private law practice in Los Angeles, has been announced by Herbert R. Gallagher, District Director in Charge at the Los Angeles office.

The resignation of Mr. Thomas will close over two years of meritorious service in guiding the legal

Clyde Thomas

phases of the operations of the Petroleum Administration for War on the Pacific Coast. In commenting upon the resignation of Mr. Thomas, Mr. Gallagher said, "I have accepted Mr. Thomas' resignation with sincere regret. He has proven his outstanding ability in an executive and administrative capacity in addition to ably performing his duties as District Counsel. I wish him every success in private practice and trust that he will continue to devote a large portion of his time to petroleum matters."

Mr. Thomas expressed his appreciation of having had an opportunity to be a part of the splendid government-industry partnership developed by Secretary Ickes as Petroleum Administrator, R. K. Davies as Deputy Administrator and J. Howard Marshall as Chief Counsel of the Petroleum Administration. "This industry-government partnership," said Mr. Thomas, "has been particularly effective in the Pacific Coast states under the able guidance of Herbert R. Gallagher, the District Director in Charge, and I am proud to have been associated with him and the capable executives from the industry on the District Five staff."

Mr. Thomas was one of the original members of the District Five Executive Staff which was organized just prior to the Japanese attack on Pearl Harbor in 1941. He is a graduate of the University of Southern California Law School and a veteran of the last World War in which he served overseas with distinction as a member of the Air Corps. After the war he engaged in the private practice of law until 1930, when he became associated with the United States Attorney's staff in Los Angeles and prior to accepting a position as District Counsel for the Office of Petroleum Coordinator, he was General Counsel for the California Oil Conservation Committee.

Slavens Appointed by Baroid

Baroid Sales Division of National Lead Company announces the appointment of O. C. Slavens as salesman for the Baroid V-Belt Shock Absorber and other specialty products in California.

Mr. Slavens comes to Baroid from Lacy Oil Tool Company with which organization he has been associated since 1935. He has worked in the drilling and producing departments of the oil industry since 1921.

O. C. Slavens

Wm. G. Corey Opens Own Offices

Wm. G. (Bill) Corey, well known to all California operators, has just announced the opening of offices in Los Angeles where he will be associated with Lacy Oil Tool Co., in the development of sales of oil field production equipment, specializing particularly on the Air Balanced Pumping Unit.

Wm. G. Corey

Mr. Corey will, however, continue with special work for the Western Gear Works, for which company he was Sales Manager of the California Division.

Mr. Corey is also treasurer of the Pacific Coast Division of the American Petroleum Institute, and has been active in all of the oil association's Coast activities.

Natcher Advanced By Standard

Appointment of S. Z. Natcher as an Assistant Manager of the Public Relations Department of Standard of California is announced by F. S. Bryant, Vice-President of the Oil Company.

Natcher entered the oil business as an engineer and scout in 1927, following his graduation from Stanford University. He joined Standard six years ago as a member of the Public Relations Department and is widely known in the California oil industry.

Acid-proof vest with 10,253 buttons

SHOWN HERE under construction is a refinery tower designed to remove undesirable tar materials from high-octane gasoline.

Because the steel shell of the tower will not withstand the corrosive action of separation acids, a chrome alloy lining was specified. 10,253 separate plug welds, each one impervious to acids and able to stand extreme pressures and temperatures, were necessary to secure the tower lining.

An unusual fabrication job, it is another of the missions completed by Consolidated Steel Corporation for war industries and armed services. It is an example of the craftsmanship Consolidated Steel will devote to the construction needs of peacetime America. Inquiries looking to future construction are solicited. Address the president.

Consolidated Steel

FABRICATORS · ENGINEERS · CRAFTSMEN

CONSOLIDATED STEEL CORP., LTD., LOS ANGELES, LONG BEACH, WILMINGTON, CAL.; ORANGE, TEX.

LARGEST INDEPENDENT IN THE WEST

BUY ANOTHER WAR BOND TODAY

Carrington King

(Continued from Page 3)

tice seemingly is re-sharpening its claws for a new drive on big business.

The recent attack on the railroad industry is considered the tip-off to a campaign which sooner or later will result in a renewed attempt to trip up the oil industry,—once a favorite pastime of the Justice Department. This campaign can be expected to gather momentum in the event of a Democratic victory at the polls, but Washington veterans point out that—regardless of which political party is in command—the Justice Department always has been interested in attempting to prove that the petroleum industry is not only big, but bad.

Saddest blow the Petroleum Administration for War has had to bear in many months is the resignation of J. Howard Marshall, — brilliant young California attorney who has been chief counsel and assistant deputy administrator for the agency.

As Petroleum Administrator Ickes put it, Howard "stayed on at great personal sacrifice" during the three years of PAW's existence before finding it necessary to return to San Francisco, where he is a partner in the firm of Pillsbury, Madison and Sutro. Deputy Petroleum Administrator Ralph K. Davies told California Oil World that Marshall's resignation was "like a major operation" to him, because of the tremendous confidence placed in him by all of his colleagues and the magnificent job he did at PAW.

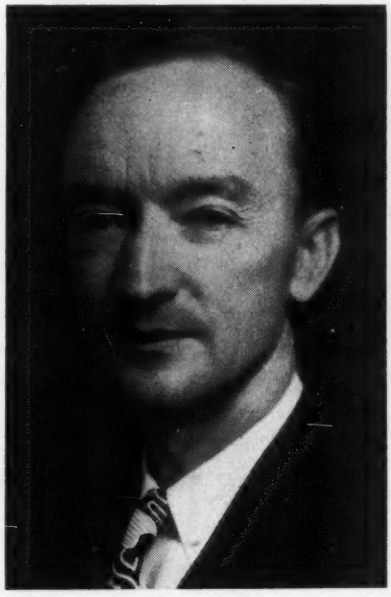
The blow of Howard's departure is somewhat softened for PAW by the fact that Robert E. Hardwicke —one of the foremost petroleum attorneys in the country and formerly associate counsel—will fill the vacancy.

. . . Since space is running short, there will be more on Howard Marshall and Robert Hardwicke in the next issue of California Oil World. Marshall's decision to return to private practice and the family waiting for him in San Francisco is a real personal loss to this writer,—who would like the opportunity to say a little more about his sterling qualities.

PAW's loss is California's gain, and Howard Marshall's friends — both in San Francisco and Los Angeles—will be glad to welcome him home.

Davis Succeeds Vander Leck

E. L. Davis of Long Beach, Calif., has been appointed director of the Production Division in District 5 of the Petroleum Administration for War. He was promoted from within PAW and succeeds Lawrence Vander Leck.



E. L. Davis

Mr. Davis joined the District 5 office of PAW in December, 1941, as chief of the Petroleum Production Section. He was appointed assistant director of the Production Division in May, 1943. Following the resignation of Mr. Vander Leck in May he served as acting director until his recent appointment as director.

A native of California and a graduate of the Stanford University with a degree in geology, Mr. Davis entered the oil business in 1923. He brought to PAW a broad experience in petroleum development and production in California covering the ensuing 18 years.

For three years following his graduation he served in petroleum engineering capacities, first with the Chanslor-Canfield Midway Oil Company and later with the Miley Oil Company. He was with The Texas Company in California from 1926 until 1941 and was district engineer for that company at Long Beach at the time he joined the PAW. He is a former chairman of the Long Beach Chapter of the American Petroleum Institute and a former vice chairman of the Pacific Coast District Division of Production, A.P.I.

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BARRIERS TO PRODUCTION

Wax, scale, and other deposits can be quickly and economically removed from wells, flow lines, tank bottoms, etc., by NOBS SOLVENTS.

Why choke off production when substantial savings may be effected by a thorough cleaning.

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WATER WITCH SERVICE
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Barge drilling scene in Louisiana Gulf Coast Swamps.

Eight million feet of hole is a lot of hole to survey, as you well know. Add to this the amount of hole directionally drilled, the horizontal deflection, and the number of deflecting tools set, and you have an important performance story—important because it is proof of Eastman's tremendous experience in the field of Oil Well Surveying and Directional Drilling; proof of nation-wide and international acceptance of Eastman's services. In other words, this performance story means that Eastman is prepared to do for you an outstanding job of oil well surveying and directional drilling, as well as providing the right kind of tools to do the job right.

Write for catalog containing complete information of all Eastman services and equipment.

CHECK THESE EASTMAN PERFORMANCE RECORDS

SURVEY FOOTAGE	8,421,389′ Approx. 1575 Miles
DIRECTIONAL HOLE DRILLED	3,333,351′ 631 Miles
HORIZONTAL DEFLECTION	586,808′
DEFLECTING TOOLS	13,572

905,328 MAN HRS. EXPERIENCE

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OIL WELL SURVEY SERVICE

CONTROLLED DIRECTIONAL DRILLING ★ OIL WELL SURVEY SERVICE ★

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THIS LAUGH

OFF!!

Virgina had a little quart
Of cider, hard as steel,
And everywhere she went 'twas sport
To watch Virginia reel.

"I know the secret of popularity."

"So do I, but mother says I musn't."

A panhandler stopped a man on the street and asked for some money for something to eat. The man said, "I'll tell you what I'll do—I'll buy you a drink."

"I don't drink," said the panhandler. "All I want is some money for something to eat.'

"I tell you what I'll do," said the man. "I'll get you a couple of real good stogies."

"I don't smoke," said the panhandler. "All I want is a litle money for something to eat."

"I tell you what I'll do," said the man. "I've got a good tip on a little pony in the fifth this afternoon—it's going to win, 10-1. I'll put up the money, you take the winnings—how about it?"

"I don't gamble," said the panhandler. "All I want is a little money for something to eat."

"I tell you what I'll do," said the man. "I'll take you out to the house for dinner—I want my wife to meet you. I want her to see what happens to a man who doesn't smoke, drink or gamble!"

Travels of a French fried potato: In your mouth a few minutes, in your stomach a few hours, on your hips the rest of your life.

Mary had a little lamb,
She fleeced him white as snow;
And when she got his last four bits,
She let the sucker go.

Just suppose we wives should go out on strike?

Go right ahead. I've got a peach of a strikebreaker in mind.

Did you notice the pile of wood in the yard?

Yes, lady, I seen it.

You should mind your grammar, and say you saw it.

Lady, you saw me see it, but you ain't seen me saw it.

In the early days of the railroads, a small road was famous for having a notoriously rough stretch of track. One day a new brakeman, making his first run, was standing in the center of the car, grimly clutching the seats to keep from being knocked over.

Suddenly the train struck a smooth piece of track and glided along with the greatest of ease, scarcely making a sound.

Seizing the lantern, the wildeyed brakeman ran for the exit. "Jump for your lives!" he shouted. "She's off the track!"

"Have you anything to say before I sentence you?"

"Only that I'm not guilty, and that I object to being identified by a fellow who had his head under the bed covers all the time I was in the room."

"I had to fire that new secretary."

"Didn't she have any experience?"

"No, not a bit. I told her to sit down and she looked around for a chair."

Conductor: "You'll have to pay full fare for that boy, lady. He must be over 12."

Lady: "How can he be over 12 when I've been married only 10 years?"

Conductor: "Lady, I'm here to receive fares, not confessions."

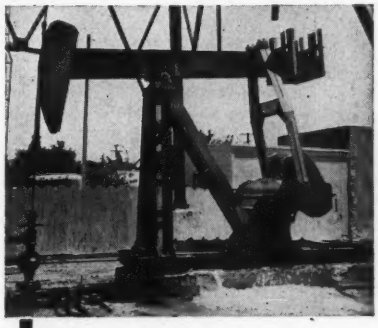
Wife: "All men are fools."

Husband: "Yes, dear. We were made fools so the girls wouldn't all be old maids."

She: "I'm entered in two contests, one for the most beautiful back, and the other for the most beautiful bust."

He: "My, aren't you excited?"

She: "I hardly know which way to turn."



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They have begun to FIGHT

Let's call him John Jones. Our John Jones has a fighting heart to match another of that name—John *Paul* Jones. But John hasn't a chance at a uniform. The doctors would laugh. The draft board would tell him to run along home. For John is 67.

Yet John Jones *is* fighting in this war. At 67, willing and skillful, he is doing a bang-up job in one of our company's war plants. He is one of many senior Standard Oilers who have earned retirement but are back on duty—*because there's a war on.*

Since they were young, these oldsters have worked toward independence. What's more, they *already had achieved it.* They had an assured income. Each was his own boss. Yet, *voluntarily,* they've gone back into harness—*to help along the war.*

Now, youth gives the most to war. But youth gives from morning of life. These others are giving the precious sunset hours. Such was the very spirit of the John Jones who signaled the enemy, "I have not yet begun to fight!" He didn't mean he hadn't started. He meant that, under fire, he would never quit!

To our own John Joneses special mention is due for their sacrifices to help on our vast war job.

Years ago, when this Company set up its retirement system, it was natural to think of it as something special for its people — which, of course, was true.

But so many of our retired employees have elected to serve instead of enjoying the relaxation and pleasures they had earned that we thought you would like to hear about it. This is the real American spirit that will win the war.

E flag, with 2 stars, awarded to our Richmond Refinery

STANDARD OF CALIFORNIA

Field Development

Los Angeles Basin

Joint Trial Starts At Newhall

British American and The Texas Co. are starting Newhall Land and Farming No. 1 on sec. 21-4n-17w west of the Newhall-Potrero field and south of Del Valle. At last report the operators were only spudded.

Yet further west Standard Oil Co. is grading roads for another try on section 19 of the township to be called Newhall Land and Farming No. 3-2.

Baindini Area Well Drilling

Hathaway Co. Rossi No. 1, sec. 22-2s-12w northwest of the Santa Fe Springs field, is coring ahead below 5550 ft. Gas showings were reported at the 1600 and 2200 ft. levels.

San Berdu Wildcat Working Daylights

Lee Salter Well No. 1, sec. 34-4n-5w in the Hesperia area, is spot coring at 2704 ft. Last reported in shale, the well is working daylight tours only. Some showings yet unlogged were reported uphole. It is thought that the well will go to 3500 ft. before testing.

Severns Starting East Coyote Well

Severn Drilling Co. has let contract to T. & T. Drilling Co. for well No. C-4 on sec. 13-3s-10w. Soon to start, the project is currently running in water and power lines.

West Coyote Well Produces

Standard Oil Co. Murphy-Coyote No. 141 completed at 6122 ft. flowing 450 b/d clean 32.2 gravity oil. The company is drilling with three strings in this field.

Dominguez Well On Completion List

Shell Oil Co. Reyes No. 133 went to the tanks flowing a settled 425 b/d, 29.6 grav. oil and 150,000 m.c.f. gas through 19/64 inch bean. The company's No. 134 on the same lease is drilling at 4571 ft.

Del Valle Test Now Under Way

R. E. Havenstrite, Operator, Liebhart No. 2 on sec. 15-4n-17w, is under way as a projected deep test of the field. The well is currently standing with 13⅜ inch casing cemented at 2183 ft. with 1300 sacks of cement. The company also has foundation poured for Barnes No. 5 on the adjoining section 16.

In this same field Ohio Oil Co. has rig up for Vasquez No. 10 on section 17, while Standard Oil Co. plans to drill Sepulveda No. 8 in the same section.

Fowler To Drill At Turnbull Canyon

Fowler Drilling Co. is building rig for Saunders No. 1 in the Turnbull Canyon field area. The rig is located 2100 ft. southeasterly and 150 ft. southwesterly from the intersection of La Subida and La Cuestra Drives.

Coyote Area Test Coring

Barnsdall Oil Co. Sunny Hills Ranch No. 2, sec. 22-3s-10w, between the East and West Coyote fields, is coring below 5650 ft. Showings are reported below 4750 ft.

San Diego Co. Well Drilling

La Jolla Petroleum Co. Well No. 1 sec. 32-15s-3w in the Waterman Canyon area of San Diego county, is drilling ahead below 1500 ft. after cementing 13⅜ inch casing at 900 ft.

LOS ANGELES BASIN WILDCATS

Area	Well	No.	Section	Depth	Status
Aliso Canyon	Standard Oil Co., Del Aliso	1	29, 3-16	5920	Drilling
	Standard Oil Co., Ward	3-1	27, 3-16	4020	Drilling
Bandini	Hathaway Co., Rossi	1	22, 2-12	5535	Drilling
Castaic	Charter Oil Co., Well	1	18, 5-16		Grading roads
El Segundo	Richfield Oil Corp., Leuzinger	1	8, 3-14		Rig
Hasley Canyon	Shell Oil Co., Claiborne	88-4	4, 4-17	5586	Drilling
Newhall	British-Am. & The Texas Co., NLF	1	21, 4-17	40	Drilling
	Standard Oil Co., N.L. & F.	3-2	19, 4-17		Location
Pico Canyon	Standard Oil Co., Pico Co.	42	1, 3-17	1271	Drilling
Puente	Alleghany Pet. Co., Rowland	1	14, 2-10	820	Drilling
	Hacienda Oil Co., Well	1	27, 2-10		Location
	Hansen, Melvin, Corehole	3	24, 2-10	1900	Swabbing
Turnbull Canyon	Fowler Drilling Co., Saunders	1	13, 2-11		Bldg. rig
Whittier	Mayo Oil Co., Grey	1	17, 2-11	3716	Drilling
	Orange County				
Bolsa Chica	Standard Oil Co., Lomita-Sunset	1	29, 5-11	4601	Drilling
Brea Canyon	Selbar Oil Co., Wardman-Comm.	1	3, 3-10		Location
Buena Park	Gen. Pet. Corp., Heath	1	34, 3-11	11422	Testing WSO
E. Coyote	Barnsdall Oil Co., Sunny Hills	2	22, 3-10	5642	Drilling
Olive	Richfield Oil Corp., Hamrick-Olive	1	8, 4-9	656	Drilling
	San Bernardino County				
Chino Hills	Chino Hills Oil Co., Kraemer	1	33, 3-28	2270	Suspended
Hesperia	Salter, Lee, Well	1	34, 4-5	2704	Drilling
Chino Area	Wm. Y. Lee, Corehole	2	21, 2-8	3010	Idle
	San Diego County				
Waterman Cyn.	La Jolla Pet. Co., Well	1	32, 15-3	1385	Drilling

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The Wiper is easy to install. *Now made from a specially developed Patterson-Ballagh PBX synthetic rubber.* Experience in the field indicates its cost is but a fraction of the savings made in weight material alone. Value as a fire preventive is an extra dividend.

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PATTERSON-BALLAGH PIPE WIPERS

See Composite Catalog

Rosecrans Test Well Recompleted

St. Anthony Oil Corp.'s Gordon No. 2, in the westerly field area, deepened to 8146 ft. and recompleted in 250 ft. of zone, flowing a 250 bbl. daily rate clean oil. To the north, in the Athens field area P. M. Girard Russell No. 1 is redrilling and deepening at 6154 ft., while across the street to the west Southern Calif. Pet. Corp. is redrilling Mahler No. 1 at 4220 ft.

Brea Outpost Well Working

Shell Oil Co.'s Puente No. B-1, northwesterly field flank test on sec. 34-2s-10w is drilling ahead in sand and shale at 3891 ft. after getting a water shut-off on 10¾ inch casing cemented without circulation at 1890 ft.

Work on the Union Oil Co. Stearns lease is currently stalled with four wells idle at depths ranging from 836 to 3250 ft. Last completed was No. 86, which is making an average 40 b/d net oil with a 98.0% water cut from effective depth of 3850 ft.

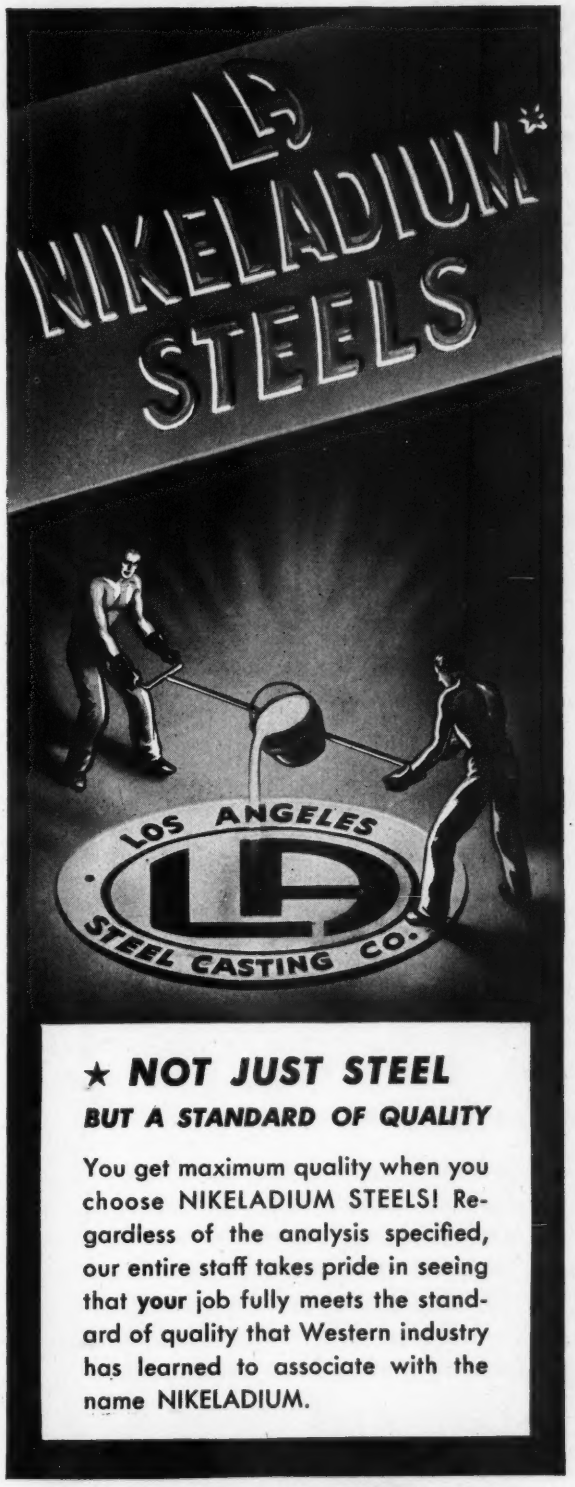
Huntington Beach Deep Test Drilling

Treasure Hill Oil Co. Rex No. 12, at the northeast corner of Summit and Smeltzer Avenues, has established circulation after considerable trouble and is deepening at 6100 ft. from the original bottom at 5063 ft. In the absence of commercial production at lesser depths the well is intended to carry to the 10,000 ft. mark.

Seal Beach Field Gets Good Producer

The Seal Beach field large completion record was furthered this week when Hellman Estate No. 8 completed at 7710 ft., flowing 1300 bbls. daily clean 29.5 gravity oil through a 48/64 inch bean. The company will immediately drill Well No. 20.

Also active in this field are Standard Oil Co., Tide Water Associated Oil Co., Shell Oil Co., Continental Oil Co. and Capital Co.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San Joaquin Valley

Standard Starting Lost Hills Wildcat

Standard Oil Co. of California will begin a test well in September which it plans to drill to a depth of about two miles on its Cahn property, Sec. 4-27s-21e, in the Lost Hills oil field, located between Kettleman Hills and Elk Hills. Four other California oil companies, General Petroleum, Richfield, Universal Cons., and Union are cooperating in the exploration. The Lost Hills area has long been an enigma to the petroleum industry. Oil was discovered there at shallow depth in 1907. By 1930, geologists recognized Lost Hills as a great closed anticline similar to Kettleman Hills. Subsequently, eight wells were drilled in an attempt to obtain oil from deeper zones productive at Kettleman and elsewhere. All these wells were failures. The cost of some of the operations was excessive because of the difficulty in shutting off the enormous quantities of flowing water encountered. It is now hoped that advantages of a new location and improved drilling technique will be sufficient to enable Standard to drill its Cahn test through the strata carrying flowing water, and down to the Eocene sands, which have been prolific producers elsewhere, but which have never been reached at Lost Hills.

McKittrick Test Cores For Zone

MacDonald, Burns & Norris, Flickenger No. 1 on sec. 36-30s-22e, southeast of the McKittrick field, is coring for the productive olig sands at 4408 ft. after finding the Upper Etchegoen sands barren. The well seeks production comparable to that of the nearby McKittrick and Elk Hills fields.

Tejon Area To Be Active

Three wells are immediately projected in the Tejon area at the south end of the San Joaquin valley.

First under way will be Richfield Oil Corp.'s Tejon No. B-55-34 on sec. 34-11n-19w, for which contracts are reported being scanned. Next on the projected list is O'Keefe & Merritt, local manufacturers, projected well near the center of sec. 33-11n-19w, in which interested leaseholders are reported joined.

The third effort in the area is a contemplated new hole on section 19 of the township by Kern Line Oil Co., which failed to find production in an 8390 ft. test near the center of the section during 1942-43.

North Belridge Gets "Y" Zone Well

Belridge Oil Co. No. 7-27, sec. 1-28s-20e, completed in the "Y" zone at 9005 ft., flowing 1750 b/d clean 30 grav. oil and 442,000 cu. ft. of gas through a 96/64 inch beam. The company will immediately follow with No. 1-Y-28 on sec. 28-27s-20e in search of the production.

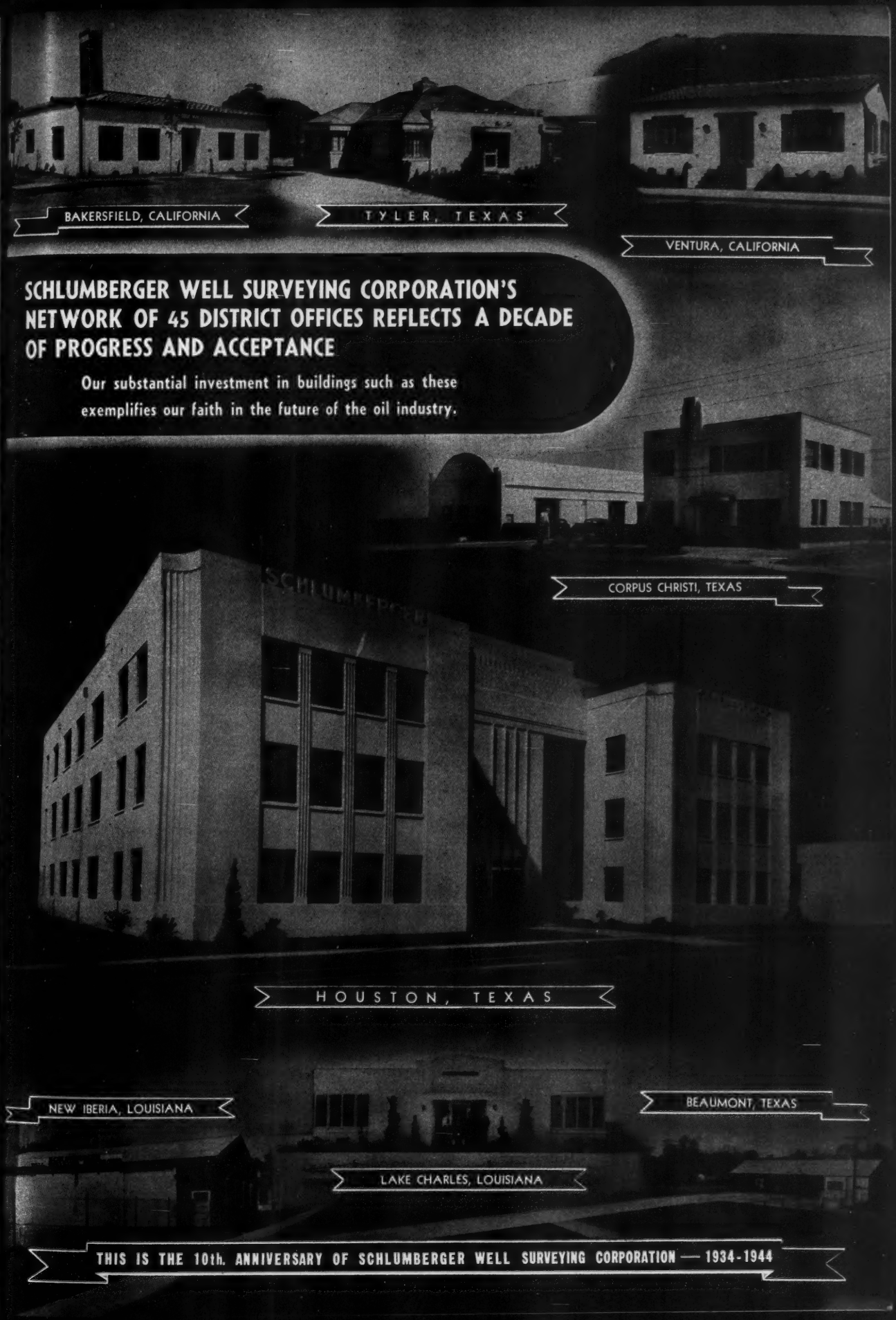
Already deepening to the zone is Union Oil Co.'s Belridge No. 19 on sec. 36-27s-20e, while The Texas Co. will soon head for the same pay with J. D. Martin No. 5 on sec. 22-27s-20e.

Coalinga Production Remains Substantial

The Texas Co.'s completion of well No. C-7 on sec. 32-19s-15e indicates that the old California field is far from depleted. The well bottomed at effective depth of 2985 ft. to finish pumping a settled 219 b/d, 16.7 gravity oil cutting 5.6%.

SAN JOAQUIN VALLEY WILDCATS

Area	Well	No.	Section	Depth	Status
	Fresno County				
Burrel	General Pet. Corp., Cryan	1-32	32, 16-19	6052	Drilling
Cantua	Seaboard-Pure Oil Co., Well	54-22	22, 16-13	6975	Drilling
Jacalitos	The Texas Co., Hawxhurst	1-6	6, 22-16	200	Drilling
NW Raisin City	Seaboard Oil Co., Seaboard-Pure	5-5	5, 15-17		Grade
San Joaquin	Superior Oil Co., Brackney	68-30	30, 15-17	8045	Abandoned
S. E. Helm	Amerada Pet. Corp., Calif. Lands	76-15	15, 17-18	6884	Drilling
Tranquility	Standard Oil Co., Patterson	74	3, 16-14		Location
	The Texas Co., Calif.-Cotton	36-23	23, 16-15		Location
	Kern County				
Ant Hill	Amerada Pet. Corp.,Ant Hill,S.P.	35-15	15, 29-29	2160	Drilling
Arvin	Continental Oil Co., Derby	1	35, 31-29	8899	Abandoned
Canfield Ranch	Shell Oil Co., Inc., KCL-B	45-27	27, 30-26		Location
Devils Den	C.C.M.O. Co., Bates	2	20, 25-19	2280	Drilling
E. Edison	Richfield Oil Corp., Cottonwood-Olcese	1	20, 29-30		Grade
Fruitvale	General Pet. Corp., KCL	76-29	29, 29-27	782	Drilling
Gosford	T. W. A. Oil Co., KCL	66-22	22, 30-26	5688	Drilling
McKittrick	Americal Pet. Corp., Americal	1	2, 30-31	5450	Redrilling
	MacDonald-Burns & Norris, Flickinger	1	36, 30-22	4408	Drilling
	Richfield Oil Corp., Olig	3	12, 30-21		Location
	Standard Oil Co., McPhee	2-1	36, 29-21	3973	Drilling
Lindsey Hills	Standard Oil Co., Notz	1	18, 28-22		Location
Lost Hills	Standard Oil Co., Cahn	58-4	4, 27-21		Foundation
McClung	Continental Oil Co., KCL-G	2	4, 30-26		Rigging up
McVan	Butler Bros., Well	2	14, 27-27	107	Drilling
	Hall, E. B. & Co., Hunt	1	28, 27-27	1970	Abandoned
Mt. Poso	Barnsdall Oil Co., Fitzhugh	1	32, 27-28	2179	Abandoned
Round Mt.	Barnsdall Oil Co., Barlow	1	24, 28-28	1320	Drilling
	T. W. A. Oil Co., Olcese	1	27, 28-29		Grade
Semitropic	Standard Oil Co., Fullerton	1	25, 27-23	11987	Drilling
Shafter	T.W.A. Oil Co., Shafter Comm.	86-A7	7, 28-25	12201	Drilling
Sheep Springs	Rothschild-Bender, S. S.	2	17, 29-21		Rigging up
So. Belridge	Bandini Pet. Co., Bacon	1	27, 28-20	8600	Drilling
Strand	Standard Oil Co., Robbins	45-35	35, 29-26	8600	Plugging
	Standard Oil Co., Borland-Olney	67-35	35, 29-26	5735	Drilling
	Standard Oil Co., Brittain	61-2	2, 30-26	8815	Drilling
	Superior Oil Co., Houghton	56-35	35, 29-26	8250	Suspended
Stockdale	W.G.O. Co., KCL	77-5	5, 30-27	10750	Drilling
Sunset	T. W. A. Co., McBean	86-36	36, 12-23	6575	Drilling
Tejon	Reserve Oil and Gas Co., Well	33-7	33, 11-19	1764	Drilling
	Richfield Oil Corp., S. P. 10	15-15	15, 11-19	6015	Drilling
Trico	Magee, H. H., Opr., Amal-Happold	2	15, 25-24	7655	Drilling
	Kings County				
Alpaugh	Standard Oil Co., Cutter	1	29, 23-22	3630	Testing
Pyramid Hills	Pyramid Prod. Co., Spreckles	1	16, 24-18	4201	Idle
	Standard Oil Co., Well	1-6	21, 24-18	1449	Drilling
	Madera County				
Gill Ranch	The Texas Co., Gill	525-17	17, 13-16		Location
	San Luis Obispo County				
Midway	C.C.M.O. Co., Well	G-3	2, 32-22	1657	Drilling
	Richfield Oil Corp., Temblor Hills	1-1	36, 31-21	4783	Drilling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Buena Vista Yields Yet Remain Solid

The newly discovered sands in the Buena Vista Hills field continue to produce good oil at a satisfactory and profitable rate.

Newest to the tanks here is Standard Oil Co.'s No. 304-27B, sec. 27-31s-23e, which finished from 87 ft. of 27B sand at 4210 ft, flowing an initial 644 b/d through a 20/64 inch beam. Reduced to a 13/64 inch beam the well made 375 b/d clean 29.9 grav. oil and 108,000 cu. ft. of gas under 500-pound flow pressure.

Navy Standard Program Progresses

Standard Oil Co. operator of the United States Naval Petroleum Reserve at Elk Hills under contractual agreement with the Navy, is making rapid strides toward accomplishing immediate production of much needed oil. The many contractors' rigs at work here are taking great strides towards the ultimate 300 producers scheduled for the field. Returns are substantial and commensurate with the high reserve estimate placed on the field. Latest completed was No. 42-34s on sec. 34-30s-24e which went on the beam for more than 525 b/d clean 18 plus gravity oil. A completion a day is the ultimate goal for this great reservoir. Surely no one can contest the fact that Californai needs the oil now.

Superior To Again Drill San Joaquin Area

Superior Oil Co. is preparing to start another wildcat on sec. 32-15s-17e after abandoning R. S. Brackney No. 68-30, sec. 30-15s-17e, at 8045 ft. in gray sand without reporting showings.

Cymric Pumpers Get Good Yield

Superior Oil Co.'s development of its shallow producing leases in this field is consistently rewarded with good production. Latest completed in the Amnicola at 1475 ft. is Weston No. 4, which went to the tanks making 76 b/d clean 12.9 grav. oil as a fair index of the zone's worth. Such development is most important in California's over-all oil shortage picture.

Kern River Program Nets Good Returns

In spite of the water lifting problems involved Tide Water Associated Oil Co.'s latest drilling program on its San Joaquin lease at Kern River is making a nice net return of oil. Average net production is 45-55 b/d 14.0 gravity oil.

Yolo County "Cat" Schedule

The Texas Co. will again try for production in the Winchester Lake area of Yolo County. The current effort will be Winchester Eight No. 1, near the center of sec. 4-6n-4e.

Standard Strand Driller Deepens

After finding the Stevens zone barren near Superior's new production northeast of the Strand field, Standard Oil Co.'s Brittain Trustee No. 61-2, sec. 2-30s-26e, is coring ahead below 8800 ft. to test the Vedder zone. Results of tests on the company's Robbins' Comm. No. 45-35 in the discovery sec. 35-29s-26e, have thus far proved disappointing.

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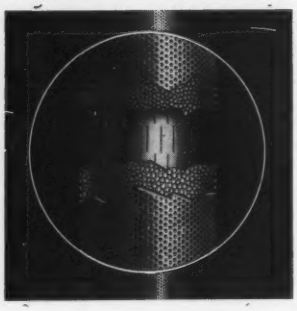

ORDINARY gravel packs that do only a half way job of keeping sand out of your well permit sand to freeze up your pumps, score rods and tubing, damage the liner and prematurely wear out surface equipment . . .

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Coastal and Northern District

Gen. Pet. Completes Rincon Producer

On the pier offshore from the Rincon field, the General Pet. Corp. completed Ferguson No. 14, flowing at the initial rate of 255 barrels per day. Producing from the Upper zone, the well flowed clean 31 gravity oil through a 16/64 inch bean with 330 pounds flow pressure and 88 m.c.f. of gas per day. The total depth of the hole is 2636 ft. with 8⅝ inch casing cemented at 2451 ft. and a 5¾ inch pre gravel packed perforated liner hung at 2635 ft. Approximately eight ft. from this well, the operator is drilling Ferguson No. 13, below 2220 ft. The locations of both of these wells fall in section 8-3n-24w.

Whittier Assoc. Testing Barham No. 2

In the Purisima Hills area of Santa Barbara county, the Whittier Assoc. have run liner and are making a production test in Barham No. 2 Located in section 11-7n-32w, the hole was bottomed in brown shale at the total depth of 3726 ft. and plugged back to 3600 ft. A string of seven inch casing was cemented at 2363 ft. and a five inch liner, including 451 ft. perforated landed at 3597 ft. and cemented through perforations at 3142 ft. The hole has now been cleaned out to bottom and the operator is in the process of making a production test. At this writing, there is no information available on the results being obtained.

Los Alamos "Cat" Coring Shale

J. I. Anderson and Southern California Pet. Corp. Archambeault No. 2, wildcat test of the Los Alamos area of Santa Barbara county, is coring ahead in (Miocene) Monterey brown shale below 4660 ft. Located in section 3-7n-32w, the well has found no oil showings down to the present depth.

Los Nietos Stakes So. Mountain Outpost

Approximately three miles west of the known producing limits of the South Mountain field, the Los Nietos Co. has staked location for Converse No. 1. The location of the hole is reported to be 227 ft. north and 227 ft. west from the center of the southeast quarter of section 22-3n-21w. The rig has been built for this project, which will test for oil in a possible anticline nose type of structure thought to exist at this location.

Los Flores "Cat" Sets Casing

In the West Cat Canyon area of Santa Barbara county, the Richfield Oil Corp. has set a string of casing in Los Flores No. 1. Located in section 10-8n-33w, the hole is currently being cored ahead in hard cherty brown shale below 6800 ft. A string of 8⅝ inch casing was cemented over oil showings found in the Monterey Chert zone at 6299 ft. After drilling ahead, possibly to the Franciscan, the operator will plug back and test these showings.

Joint Test Being Rigged

In the Richvale area of Butte county, the Pacific Western Oil Corp. and the Geo. F. Getty, Inc., have joined forces and are preparing to drill a gas test which will be known as Greenlee No. 1. The location is reported to be 1320 ft. north and 1320 ft. west from the southeast corner of section 25-19n-2e. This location falls approximately 13 miles east of the Richfield Oil Corp. gas discovery well Afton Comm. No. 1 and is about four miles north of the town of Biggs.

Standard Stakes Glenn County "Cat"

The Standard Oil Co. is preparing to drill Torres No. 1, a gas test which is located near the northwest corner of section 12-18n-2w. This location falls approximately 1½

COASTAL COUNTIES WILDCATS

Area	Well	No.	Section	Depth	Status
	Santa Barbara County				
Cat Canyon	Richfield Oil Corp., Los Flores	1	10, 8-33	6793	Drilling
	Union Oil Co., McNee, C. H.	3	20, 9-32	4100	Drilling
	Union Oil Co., Santa Maria Realty	1	10, 9-33		Foundation
Gaviota	Standard Oil Co., Hollister	1	35, 5-33		Rig
Lompoc	S. R. Williams, Fickert	1	8, 7-33	3446	Idle
Los Alamos	J. I. Anderson & So. Calif. Pet. Corp., Archambeault	2	3, 7-32	4660	Drilling
Los Olivos	Hub Oil Co., La Laguna	1	7, 7-30	3580	Prep. to deep.
Purisima	Whittier Assoc., Barham	2	11, 7-32	3726	Stdg. cem.
	Ventura County				
Eureka Canyon	El Rika Oil Co., Well	7	33, 4-18		Location
Ex-Mission	Union Oil Co., Adams	41	19, 4-21	2288	Drilling
Happy Camp	Cal-Camp Oil Corp., Harrington	1	21, 3-19		Grade roads
Piru	Delroy Pet. Corp., Lisk	3	22, 5-18	3149	Idle
	Standard Oil Co., Bowman	2-1	14, 4-18	7974	Drilling
Sespe	Assoc. Pip. & Eng. Co., A.P.&E. Co.	1	5, 5-19		Move in equip.
	Volunteer Pet. Co., Tar Creek	3	28, 5-19	2365	Drilling
	Merchants Pet. Co., Well	9	1, 4-20		Rig
South Mt.	Los Nietos Co., Converse	1	22, 3-21		Location
	Pac. West. O. Corp., Yale	1	13, 3-21	3602	Drilling
	Wilshire Oil Co., Petit	2	16, 3-20		Rig
Timber Canyon	Hickey, Noble J. Temple	1	22, 4-21	704	Drilling
	San Luis Obispo County				
Arroyo Grande	McDuffie, Wm. C. Adams	1	31, 31-13	3630	Drilling

NORTHERN COUNTIES WILDCATS

County	Well	No.	Section	Depth	Status
Butte	Pacific Western & Getty Greenlee	1	25, 19n-2e		Riggingup
Colusa	Standard Oil Co., Princeton	1	24, 18n-2w	5198	Abandoned
	Standard Oil Co., Torres	1	12, 18n-2w		Rigging up
Contra Costa	Shell Oil Co., Inc., Jacuzzi	1	34, 2n-2e		Location
San Benito	Panoche Pet. Co., Panoche	1	24, 16s-10e	831	Drilling
San Mateo	Richfield Oil Corp., Lena Souza	1	13, 7s-5w	4916	Drilling
Solano	Shell Oil Co., Inc., Lambie	1	25, 4n-1w	2374	Drilling
	Standard Oil Co., Suisun	3	5, 3n-1w	5167	Drilling
	Standard Oil Co., Suisun	4	5, 3n-1w	965	Drilling
	Standard Oil Co., Fontana	1	23, 3n-1w	7485	Drilling
Tehama	Superior Oil Co., Saldubehere	1	12, 24s-3w	7660	Drilling
	The Texas Co., Jelly-Bend	18-8	8, 29n2w	1933	Drilling
Yolo	The Texas Co., Winchester	8-1	4, 6n-4e		Location

miles north of the operators recently abandoned Princeton Comm. No. 1, which was bottomed in cretaceous gray sand and shale at the depth of 5198 ft. and abandoned when the hole was junked with drill pipe.

Rio Vista Completion

The Standard Oil Co. Andrus Island Unit No. 3, has been placed on production and blew dry gas at the initial rate of 7685 m.c.f. per day through a ½ inch bean with the tubing and casing pressures equalizing at 1353 pounds. Located in section 3-3n-3e, the hole was bottomed at the total depth of 3880 ft. A string of 5½ inch casing was cemented over the green sand at 3795 ft. and a four inch liner, including 82 ft. perforated landed at 3879 ft. Southwest from this well, in section 9-3n-3e, the Standard Oil Co. is completing Oulton Land No. 3, from the depth of 3979 ft. while Oulton Land No. M-4, is coring ahead below 4530 ft.

BUY WAR BONDS

Carl A. Poppino
Recently appointed Sales Engineer for General Electric Co. in the Bakersfield district.

Bulletin On Pneumatic Sponge Pumps

A new Bulletin on Pneumatic Sponge Pumps has just been issued by Byron Jackson Company. This bulletin, No. 44-7035, covers the pneumatic sponge pump designed for pumping heads up to 150 feet, in single stage, and 300 feet; in two stages, and is applicable for use in mine shafts and winzes, coffer-dams, caissons, sumps, cisterns, pit, tanks, basements, manholes and bilge; on construction projects for salvage work, or other similar applications where the pumped fluid contains a heavy percentage of solids.

Copies of the bulletin may be had by writing Byron Jackson Co., P.O. Box 2017, Terminal Annex, Los Angeles, California.

PET. ENGINEERS & GEOLOGISTS WANTED!

Wanted—Petroleum Engineer and Geologists with field experience. Excellent opportunity with major oil company operating in Venezuela. Permanent positions. Engineers should be experienced in well completion practice and equipment. Mud control experience valuable. Give age, educational background, exp. and marital status to Box 507, c/o California Oil World 9/5b

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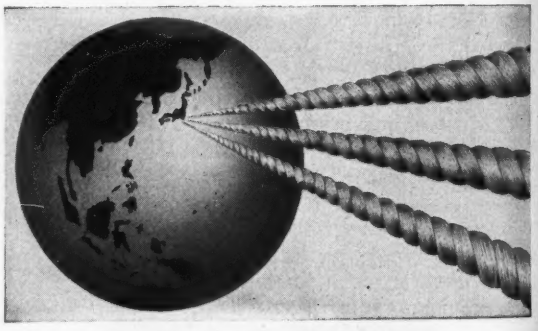

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